





Trends

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William Penn Mott, Jr., Director National Park Service

John H. Davis, Executive Director National Recreation and Park Association

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U.S. Department of the Interior National Park Service

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Ropes courses should become increasingly popular in urban areas.

Introduction by Alan Ewert, Ph.D.

One measure of progress in our civilization has been the ability to insulate its members against an entire host of environmental and societal dangers. Immense regulatory and technological organizations have been established with the primary focus of public protection. Ironically, as the majority of our institutions strive to counteract danger, millions of people seek out risk and danger through their recreation. An increasing number of recreation delivery systems, universities and secondary schools have incorporated into their programs risk recreation activities such as ropes courses, rock climbing, backcountry camping, or white-water canoeing.

This searching for risk in recreation has touched the resource manager as well. Both public and private recreation resources are being impacted by the risk recreator in a variety of ways: changing use patterns, altering public expectations such as search and rescue capabilities, and a heightened need for technically-skilled park personnel. The era of the park ranger who is also a competent backcountry ranger, climbing specialist or whitewater paddler is rapidly arriving.

A Growing Involvement

Risk recreation, or the deliberate inclusion of activities offering elements of physical or emotional danger such as hang-gliding or SCUBA, is not just for the daredevil or expert outdoorsperson. Rather, it is a way of recreating for many different types of people, in a variety of locations, and with a number of different expectations. Unlike more traditional forms of recreation, i.e., sports and indoor games, risk recreation

offers the participant excitement without competition, personal achievement or an opportunity to meet other people while immersed in an often unique natural setting. While everyone may not have the desire to participate, risk recreation can and does include the disadvantaged, people with disabilities, senior citizens and minority groups. Youth hostels, elder hostels, drug rehabilitation and counseling centers, the military services, youth leadership schools and countless private camps use risk recreation activities as part of their programs.

Future Directions

With this remarkable growth of interest in risk recreation comes questions about the goals and directions of this new type of activity. Should risk recreation be restricted, condoned or even encouraged is an issue looming before many agencies. Severe restrictions could embody revolt in the form of unlawful behavior—for inevitably people will continue seeking adventure and risk in their recreation. Condoning or encouragement suggest support for and agreement with risk recreation on our public and private lands. Completely removing the risk will dissolve the very reason many people engage in such activities.

The answer clearly lies in the proper management of the risk recreation experience. Mountains needn't have hand-rails but neither should they be trampled with countless risk seekers, many of whom require medical aid or evacuation. This issue of *Trends* is devoted to encouraging the development of sound management decisions involving risk recreation.

Toward this end, Leo McAvoy and Daniel Dustin's article examines the concept of regulation of risk recreation activities. In a related area, David Cockrell discusses the certification of outdoor leaders, while Michael Mobley looks at the management of risk in his article "On The Razor's Edge: The Management of Risk."

From a resource management perspective, Richard Wilburn of the National Park Service discusses "The Challenge in Managing High Risk Visitor Activities" and H. Peter Wingle of the USDA Forest Service addresses "Perceptions and Choices of Risk Taking."

Michael Mobley, Judy Deinema, Kelly Rowell and Gini Bradley discuss the use of risk recreation activities with special populations. Ian Wade looks at outdoor adventure programs on public lands, while Rita Yerkes examines risk recreation in the organized camp setting. Since there appears to be evolving trends within the arena of risk recreation, Alan Ewert discusses several important trends emerging in this area. Lastly, Charles Mand addresses risk recreation in higher education.

Hopefuly, these articles will provoke a great deal of thought concerning the use of risk recreation activities. Turning these thoughts into action by providing the public with beneficial, acceptable risk recreational activities will fulfill the purpose of this *Trends* issue.

Alan Ewert, Ph.D., is coordinator, Program of Outdoor Pursuits at The Ohio State University in Columbus, Ohio.

Risk Recreation: Trends and Issues

by Alan Ewert, Ph.D.

December 29, 1913 THE SOUTH POLE

A New Imperial Expedition

Sir E. Shackleton's Plans

ACROSS THE ANTARCTIC CONTINENT.

We are able to announce to-day, with a satisfaction which will be universally shared, that Sir Ernest Shackleton will lead a new expedition to the South Pole next year.

Immediately after the appearance of this announcement in the London Times over 5000 people applied for the 56 positions in the Shackleton Expedition (Shackleton, 1920). This was the greatest number of responses to an announcement that the Times had ever received, before and since. This guest for adventure and excitement has carried over into our current recreational delivery systems. Activities such as backpacking, mountain climbing, white-water rafting, and SCUBA have become popular activities in many recreational programs. Surrounding the provision of these activities has been the development of a variety of support systems such as adventure centers, training programs and certification schemes. This article discusses the current situation with this new form of recreation, several emerging trends and the implications of these trends.

The Current Situation

That some people deliberately choose to engage in life-threatening recreational activities should surprise no one involved in recreation management. Traditionally labeled as daredevils, individuals now seeking the elements of risk and adventure through risk recreation constitute a lucrative recreation expenditure well

into the millions of dollars. Risk, or the threat of physical and emotional harm, emerges when there is loss of control over the outcome of a particular activity. Although some may view the seeking of risk as dangerous and foolhardy, many risk recreators view risk-taking as a desirable and even necessary component for their enjoyment. Risk recreation can be defined in the following manner:

A self-initiated, non-consumptive recreational activity engaged in a natural outdoor setting, that contains the elements of risk, either real or perceived, in which the outcome is uncertain but influenced by both the participant and/or circumstance.

Within this context, the object of risk recreation is not to eliminate risk but rather to manipulate it to acceptable levels (Helms, 1984). This manipulation is accomplished in a number of ways including personal skills and abilities, correct decision-making and proper equipment. In a similar fashion, incorrect decision-making, faulty equipment or a lack of necessary skills and abilities can lead to unacceptable levels of risk for the participant. Thus, while risk recreators deliberately seek out the components of uncertainty of outcome and apparent danger, they usually do so in a manner which gives them the concomitant elements of control and personal influence upon the outcomes.

Risk recreation has moved from the arena of a foolhardy activity to one in which the participant uses elements of danger to accomplish certain objectives and feelings. Historically, these objectives have been thought to include a variety of little understood but keenly felt items such as thrills, adrenalin rushes and peak experiences. However, there is much more to the risk recreation experience, particularly with respect to the expected benefits. These benefits generally fall into three categories: psychological, sociological and physical, and are listed in Table 1.

Although many of these benefits can be realized through other recreational opportunities, it is becoming increasingly evident that risk recreation has become a popular method for achieving recreational objectives.

The popularity of risk recreation can be seen through a variety of indicators. As early as 1975, over 200 colleges and universities had courses or programs in risk recreation activities. Organizations which have begun to address risk recreation include the Association of Experiential Education; American Camping Association;

Table 1. — Potential Benefits of Outdoor Adventure Participation.			
Psychological	Sociological	Physical	
Self-concept	Compassion	Strength	
Confidence	Group Cooperation	Coordination	
Self-efficacy	Respect for Others	Cardiovascular	
Sensation-seeking	Outdoor Education	Outdoor Skills	
Diversion	Nature Awareness	Sensory Awareness	
Value Clarification	Communication	Health	
Problem-solving	Behaviors	Catharsis	

American Alliance of Health, Physical Education, Recreation, and Dance; and the National Recreation and Park Association.

Other indicators are present which suggest an increase in the number of risk recreationalists and a greater appreciation and understanding of the concept of risk recreation. These indicators include increases in the following:

- organizations/camps featuring risk recreation-types of activities.
- regulations at all levels of government to limit the damage done to the resource base by increased numbers of users seeking risk recreation.
- sales and expenditures of both material and programs oriented toward risk recreation.
- use of risk recreation activities such as rappelling for advertisement and commercial purposes.
- ropes courses and adventure centers which supply adventure outings in more urbanized or physically restricted settings.
- workshops/training programs such as avalanche schools which serve to provide basic and advanced learning for the participant,
- legislation which directly or vicariously affects risk recreation participants, programs or settings. One current situation is proposed legislation in several states concerning the certification of outdoor leaders.



Many persons view ice climbing as an enjoyable recreational activity.

Table 2

Current Status of Risk Recreation Activities:
Participation Rates, Enjoyment Level, And Implicit Number of Participants

ACTIVITY	Percentage of total sample who partici- pated once or more during 12 months prior to interview	Percentage of par- ticipants who indi- cated particular enjoyment from the activity	Implicit number of participants in U.S. population 12 years or older (millions)	Percentage of participants who expect to start activity in next 2 years	Percentage of participants who have stopped activity in prior 2 years
Horseback Riding	9	40	17	15	7
Bicycling	32	30	61	- 3	
Caoneing or		r : -r			
Kayaking	8	16	# 15 P	16	3
Sailing	, 6	19	11	16	3
Backpacking	5	15	9	14	5
Camping in Primitive					
Campgrounds	10	N/A	18	5	2
Downhill					
Skiing	6	N/A	12	2	9
Cross-Country				3300-010	
Skiing	3	N/A	6	33	3

Upon reviewing A. C. Nielsen national surveys, Cordell and Hartmann (1983) report that the ten most popular sports and outdoor recreation activities are, in order: swimming (45% of U.S. population), bicycling (32%), fishing (28%), camping (27%), boating (19%), bowling (18%), physical conditioning with equipment (15%), and pool/billiards (13%). Among these and other sports surveyed, ice-skating, swimming and pool/billiards decreased while bicycling, boating, skiing and sailing increased strongly.

Along similar lines, Brady and Skjemstad (1974) suggest that the number of cross-country skiers rose from 2,000 to 500,000 between the years of 1964 and 1974. Similarly, between the years 1971 and 1973, the Southern California Hang Glider Association increased from 25 to 4000 members (Dunn and Gulbis, 1976). The current and future status of some selected risk recreation activities are listed in Table 2.

Clearly, risk recreation activities are participated in by a substantial

number of people. However, participation rates are but a result of a number of components including social/economic, environmental and individual factors. Any emerging trend in recreation will be determined by the contextual base and socioeconomic variables surrounding the activity (Ewert, 1985). The contextual base refers to the physical, psychosociological and cognitive factors of the activity. In the case of risk recreation, many activities require an individual predisposition that is both physically and psychologically amenable to accepting risks in the recreation setting (Zuckerman, 1979).

Other requirements include equipment or material, and a geographically acceptable setting such as whitewater or rock climbing site. To engage in many outdoor adventure activities requires a certain level of outdoor and/or technical skills, either being possessed by the recreator or made available through an instructor or guide.

Ambient socio-economic variables which could impact the outdoor

adventure scene would include population considerations such as age distribution, growth rates, mobility and distribution patterns, discretionary income and composition. Other factors influencing supply/demand responses are transportation/energy costs, inflation/interest rates, available time, employment patterns, political attitude, legislative restrictions, competing uses of resources, level of government spending and amount of available outdoor adventure resources suitable for recreationalists.

As can be seen from Table 3, the contextual base surrounding each risk recreation activity is affected in a number of ways. Major positive influences include population growth, increases in discretionary time, increasingly flexible employment patterns and an increasing number of organizations involved in outdoor adventure. Negative influences include increasing age and changing composition of the population, rising transportation costs, decreasing levels of government spending and decreasing amounts of available, suitable natural resources.

Table 3.--Selected Factors Influencing the Supply and Demand of Outdoor Adventure Recreational Opportunities, 1984-2000. a

		Effect on Contextual Base Surrounding Activity				
Social Economic Variable	Trend of Variable	Individual Predisposition	Acceptable Setting	Equipment Material	Net Effect	
Population:		& Motivation			1	
Growth	†	++	_	0	+	
Age	•		0	0		
Distribution Discretionary	SouthWest	+	++	0	+++	
Income		+	0	+	++	
Composition	† Minority Represent	-	0	-		
Transportation Energy Costs	^		-	-		
Inflation/Int. Rates	⊖ / †	+	0	+	++	
Discretionary Time	Ť	++	0	0	++	
Employment Patterns	More Flex- ible	++	+	0	+++	
Political At- titude of Public	Conserv./ Assertive	-	-	0		
Legis. Restric- tions on Users	^	-	+	~	-	
Competing Uses of Resources	1	-	-	0		
Level of Gov't. Spending	T.	-		0		
Amount of avail- able resources	4	-		0		
# of organiza- tions in out- door adventure	Ť	+	+	++	++++	
Technology	*	++	0	++	++++	
Overall		12+	S+	6+	21+	
Effect		10-	8-	3-	19-	

Notes: \uparrow = increase, ψ = decrease, \leftrightarrow = stable, + = positive, - = negation

These and other developing influences have created a situation in which outdoor adventure appears to be an increasing recreational development. To date, a number of organizations involved with risk recreation have experienced changes in enrollment patterns. In response to these and other changes, several trends have emerged in outdoor adventure.

Emerging Trends

Given the influencing factors already discussed, it seems reasonable to expect a number of changes in risk recreation. While all segments of the population appear to have access to at least a few risk recreation activities, the aged, minorities and the disadvantaged (in terms of income and education) have continued to be less involved. As described in Table 2. while disposable income will continue to rise in many population categories, particularly in dual-income families, the amounts of mutually available time blocks will decrease. In a similar fashion, as risk recreation activities become more available and participated in, organizations will seek to provide more intensive and varied experiences. A search for broader financial support through new and continuing audiences will lead to a number of programming changes. These changes include:

- Shorter (3-9 days), intensive risk recreation experiences especially aimed at the affluent but time-pressed professional/business person.
 The weekend package of risk recreation opportunities will increase in popularity.
- A redirection of program goals to include positive benefits in

physical fitness, skill development and team building. Traditionally, many risk recreation programs have focused on self-concept changes and personal introspection. While these are desirable effects, changing clientele (e.g., the older participant) will necessitate a re-evaluation of expected and attainable benefits.

 Risk recreation activities will be conducted with a variety of populations including juniors (14-17 years old), women's groups, troubled youth, chemically dependent, seniors and people with disabilities. Individuals and groups will be merged with risk recreation activities along "compatability lines" (Cipriano, 1985) in that activities will be chosen for their *specific* benefits and in accordance with the special needs or abilities of the individual.

 Ropes courses and adventure centers close to or in urbanized settings will become increas-

a Modified from Cordell and Hendee (1982).

ingly popular offerings. The ropes course being defined as an obstacle course of cables, ropes, swings, logs and nets, and constructed in trees, rafters, other devices (McBride, 1984:16) will become a major focus for many programs.

- Coinciding with developing educational trends of lifelong learning (Rillo, 1984: 15), an increasing number of colleges, universities and high schools will be offering credit for participation in outdoor adventure programs. Other concurrent themes will be cross-cultural adventure courses, outdoor instructor centers and organizations which specifically cater toward outdoor adventure workshops.
- Successful programs involved with risk recreation will recognize the trend that societal interests are moving from natural resources issues toward environmental health related issues (Siehl, 1985). For the field of risk recreation, addressing this trend will involve a de-emphasizing of wilderness-related issues and an emphasizing of physical and emotional health concerns.
- Like other emerging fields (e.g., computer industry), agencies offering risk recreation will suffer a "shake-out" period with the resultant failure of a substantial number of organizations. Those that survive will, in part, do so because of sophisticated marketing techniques, intensive and periodic program evaluations,



SCUBA has become a popular activity in many recreational programs.

effective risk and financial management and diversified offerings. Organizations such as the Boy Scouts, Outward Bound, Project Adventure and the National Outdoor Leadership School will continue to be widely emulated in both their models and programs. Many organizations will seek to broaden their financial base by external grants and incorporating successful marketing operations such as exotic culture prog-

 There will be an increase in the sophistication and training opportunities for staff or instructors in risk recreation.
 Certification of outdoor leaders, schools offering degrees in outdoor pursuits, and the professionalization of the field of outdoor leadership are presently being accomplished or will be shortly.

Implications

The supply and demand of outdoor adventure recreational opportunities will reflect a variety of external and internal forces. A growing, more urbanized, mobile and affluent population will create a greater demand for risk recreation activities. Inhibiting this demand will be increases in transportation costs and competing interests for a decreasing supply of available resources. In a broader sense, changes in population, economics and spending patterns announce major upcoming structural alterations within our society. Expenditures for leisure activities will continue to rise with a 1984 total of 310 billion dollars being spent on sports, recreation and entertainment (U.S.News and World Report, August 13, 1984).

Alle

To meet this growing need several steps need to be implemented. Utilizing these steps would constitute a risk recreation management strategy, with the ultimate goal of providing for the needs of our society. These steps include (1) inventorying the types and location of organizations offering risk recreation, (2) firmly establishing what benefits and costs can be realized through participation in risk recreation, (3) providing information networks for the public concerning the availability and objectives of risk recreation (this is particularly true if one considers that the concept of recreational information networking is of growing importance), and (4) initiating efforts to better understand the use of risk recreation activities. Other concerns would focus on the standardization of risk management procedures and the safeguarding of physical resources in which risk recreation activities take place.

In sum, it appears that by the year 2000, demand for outdoor adventure opportunities, as they currently exist, wil exceed the supply of natural resources, e.g., geographical locations needed to provide those opportunities. This demand will be met in many ways such as local man-made obstacle courses, and human versus human in a natural setting such as the popular Survival Game, where the goal is to capture the opponent's flag with each person having a dye pellet gun.

Risk recreation activities will become internalized into a program of life-long learning in different cultures and pedagogic settings. From the traditional outdoor adventure perspective, as perhaps the fur-trapper may have said when the American



Evacuation plans and equipment should be part of every adventure program.

West became populated, "It might not be better, but it sure will be different." If this prophesy is correct, it will become increasingly important for our professional and governmental organizations to provide for beneficial risk recreation outlets.

Alan Ewert, Ph.D., is an Assistant Professor and Coordinator, Program of Outdoor Pursuits at The Ohio State University in Columbus, Ohio.

High Adventure Recreation in Organized Camping

by Rita Yerkes, Ph.D.

High adventure recreation refers to stress/challenge outdoor activities involving the natural environment where the outcome is unknown by the participants. It involves both the mental and physical capabilities of the individual in relationship to a group through which experiences can be processed and shared (Yerkes, 1984). High adventure recreation has received enthusiastic acceptance in the United States since 1964 and has become a popular form of leisure activity for both children and adults. As a result camp directors, noting this increased participation, added adventure components to their programs to attract this growing clientele.

Since park and forest land utilization increases with the growth of new leisure activities, high adventure recreation programming in camps has created certain trends for park and recreation managers. The most significant current trends are:

- 1. There are over 10,000 camps in the United States, of which a majority offer high adventure activities. This has led to an increase in permit and reservation systems. As a result camps must plan 1-2 years in advance to budget user fees and plan reservations.
- More camps are hiring wilderness skill certified staff through such programs as Outward Bound, National Outdoor Leadership School, The American Camping Association, and The Wilderness Education Association.
- 3. Camp directors are very concerned about safety and risk management. They often seek

- assistance from park managers in the development of plans to provide safe programs and limit liability.
- 4. Camp directors are offering high adventure programming all year round. This has created increased use of park lands and the need for emergency support services.
- 5. Organized camping has dropped the term risk recreation and adopted the term "high adventure" instead. Risk was considered a *red* flag word and did not adequately reflect camp philosophy and programming.
- Camps are incorporating environmental education as a part of their high adventure programs.
- Camp programs are adding sessions for special populations such as women, older adults, adjudicated youth and the handicapped.
- 8. A controversy exists over different user fees and reservation privileges for non-profit and profit camps. Some camps have limited high adventure activities due to this expense.
- Camps are offering family high adventure experiences. This will create increased park land use due to how families may spend their future leisure time.
- Camps need continued park manager support/assistance for education, high adventure

program planning and emergency rescue facilitation.

As organized camp professionals and park managers address these current trends, they must also be aware of future predictions as well. Henderson and Bialeschki(1984) agree with Alvin Toffler's assessment in *The Third Wave*. Toffler stated, "that we are facing the deepest social upheaval and creative structuring of all times" (p. 21). Some of his future predictions will affect high adventure recreation in organized camping such as:

- 1. Government spending cuts will affect the park and forest land system. This in turn will curtail services to the general public for leisure education. Camps may benefit by providing high adventure programming for the public.
- The population will get older as the birth rate declines. Camps may need to redesign their programs for inclusion of young and older adults.
- Camps will play a greater role in developing a healthy "leisure ethic" in their clients.
 With decreased work schedules, our population will need assistance in planning increased leisure time.
- 4. Camps will offer high adventure programs to a diverse clientele such as women, adults, single parents, families, the handicapped and youth.
- 5. Camps that offer high adventure programs will help to

- replace opportunities for stress; challenge and personal achievement eliminated in the work place by high technology.
- Camp high adventure programs will help youth and adults learn decision-making skills that will help them to enjoy life through non-work opportunities.
- Camps will play a greater role through high adventure programs in leisure education and counseling for the general public.
- 8. Camp high adventure programs will help youth and adults cope with the pressure that comes from economic conditions, threat of world war, cybernetics and the search for life meaning.
- 9. Camps will require their high adventure program staff to have a greater knowledge of adventure skill teaching, and recognized outdoor leadership instructor certifications will be required.
- 10. Camps that offer High Adventure programs will help park and recreation managers to handle the increased numbers of participants seeking high adventure experiences.

To prepare for the future, park and recreation managers must anticipate the increased demand on park and forest lands by camp programs and private outfitters providing high adventure programming. This can be done by reading the outdoor leisure professional literature, communicating with organized camping pro-

fessionals and attending outdoor leisure conferences such as the Association for Experiential Education, the American Camping Association and the International Camping Congress in 1987. As Alvin Toffler suggests, "The third wave is coming." (Henderson/Bialeschki, 1984)

Dr. Rita Yerkes is an Assistant Professor in Outdoor Recreation in the Department of Health, Physical Education and Recreation at Miami University in Oxford, Ohio.

On The Razor's Edge: The Management of Risk

by Michael Mobley

"Life begins with a situation of binary outcomes; will the ownin be fertilized or not? Thereafter hazards never cease." (Cohen and Hausel, 1964)

"There is no such thing as an accident. What we call by that name is the effect of some cause which we do not see."

(Voltaire)

"If preventable, why not prevented?"
(Shakespeare)

The dirty green pickup truck roared with urgency down a back road of the park. Inside the cab the park and recreation manager was softly cursing. The truck was destined for the base of a small cliff that was used by various outdoor recreation/education groups for climbing. Eight groups had secured permission to use the site. The group on the cliff today was in serious trouble. A red-haired, freckled-faced, fifteen-year-old girl was dangling in terror.

The rappel had gone astray. Jammed and snarled rope was the cause. The girl's screams of anguish ripped the air. Her flailing was causing her safety line to rise up around her ribs. Her breathing was becoming restricted and she was weakening quickly. The group's leader was in a mild panic. This had not happened before and there had been no training for it. There were no contingency plans or extra equipment.

The pickup arrived. The recreation manager felt a surge of compassion and concern for the girl on the rope. That same moment was filled with anger toward the group's leader for letting the situation develop and for the inevitable forthcoming, lawsuit that would ensnarl the entire recreation area staff. How could this have hap-



The thrill of rappelling

pened? How could the recreation manager have prevented it?

Risk Recreation Defined

The phrase "risk recreation" is often bandied about. It usually is tied to outdoor pursuits that involve an obvious possibility of physical injury. Climbing, caving, whitewater adventures are all examples.

Individuals have always pursued this kind of activity. Only in the last twenty years has risk recreation been fully adopted by organizations and institutions. The reason? These activities have been shown to have tremendous educational and therapeutic value . . . and there is a market for them.

What is meant by the word "risk?" The definition often will include words like uncertainty, probability, chance and possibility. From the onset, risk should not be confused with the terms "peril" and "hazard." Peril is the *source* of the loss, as distinct from the uncertainty about a loss. A fire, a broken rappel rig and a liability judgment are examples of sources from which losses may occur. They give rise to risk, but are not risks themselves. A hazard is the condition that increases the likelihood of loss. Physical hazards would include a badly worn rope, a summit during a storm and bad brakes on a school bus. Human hazards would include accident-proneness, carelessness and failures in judgment.

There is perceived risk; there is objective risk. Any endeavor contains both. A person walks *unknowingly* onto a bridge that is about to be dynamited. The perceived risks are low, the objective risks are high. A person

walks onto a bridge in the *mistaken* belief that it is about to be blown up. The opposite is true.

Which Risk?

When organized groups utilize "risk recreation" for educational or therapeutic reasons, which kind of risk is necessary? Or put another way, are the organizational goals associated with risk-taking realized through confrontations with perceived risk or objective risk? The distinction is critical.

A good program understands the difference, tries to magnify the perceived risk and does everything to mitigate the objective risk. Park and recreation managers who oversee (or grant permission to utilize lands) programs of risk recreation must insist that programs taking the greatest risk also take the greatest prudence. Morally and legally there is no alternative.

Without enough perceived risk, recreational activities are devoid of much of their intrinsic therapeutic value. A program which allows too much objective risk-taking is reprehensible. A death or maining becomes inevitable. Alas, how much risk is enough?

On The Razor's Edge

Park and recreation officials walk a razor's edge when it comes to the management of risk recreation. Thank goodness much has been learned in the last several decades about controlling the risks associated with outdoor pursuits. There is now a wealth of theoretical (Ewert 1984) and practical (Mobley 1981) information on risk management and accident prevention (Mobley 1984). A profes-

sional association of programs that utilize adventure-based methodology has been formed (Association for Experiential Education). The AEE developed and published a document detailing common and accepted peer practices in risk recreation mangement.

A park administrator does not need to be an expert on all the varieties of risk recreation activities to oversee or evaluate such a program. The administrator should ask that the following specific items be shared by an organization as partial proof of its interest in and commitment to controlling risks.

- 1. Safety record of the individual organization.
 - *Sound, adequate and accurate surveillance system.
 - *When and how the system is used.
 - *What the system is used for (provide examples of safety improvements).
 - *Results of system (e.g., frequency of injury).
- 2. Safety record of similar programs.
- 3. Written policy, procedures and guidelines for all programming.
- 4. Standards for staff hiring, progressions and supervision.
- 5. Adequate staff training.
- 6. Systems for handling emergencies.
 - *First, second and third priority tasks.
 - *Chain of command.



White-water rafting on the Colorado River.

- *How to handle press and public relations.
- *Procedures for recording the handling and investigation of an accident.
- 7. Systems for detecting and correcting staff burn-out.
- 8. Systems for detecting and correcting non-human hazards (provide examples of success).
- Real nature of risks involved (objective versus subjective) in the recreation program.
- 10. First-aid training.
 - *Background of staff.
 - *Training provided for students.
- 11. Location of medical facilities nearby and adequate first-aid materials on-site.
- 12. Progressive training of students to handle the hazards of the wilderness.
- 13. Other risk transfer techniques used by the organization (e.g., liability release forms).
- Regular inspection schedules for all facilities, activity sites and equipment by qualified personnel.
- The effective use of safety coordinators and safety committees.
- Top management's regular involvement and support of safety programs.
- Demonstrate involvement in national and/or regional associations that address issues of safety (also other ways to

maintain a program operating at the state-of-the-art).

- 18. Demonstrate regular safety peer reviews.
- 19. Demonstrate willingness to utilize outside consultants and experts when needed.
- 20. Contingency plans for a sudden loss of key personnel.
- 21. Qualified personnel (in reference to safety) in top management positions.
- 22. An understanding and identification process for high-risk participants and methods for handling them.
- 23. Use of and compliance with accepted peer practices.

This list is clearly not all inclusive. However, these items do incorporate many of the important risk management concepts developed by the outdoor pursuits profession. Wherever possible, items from the above should be put in writing. This helps to ensure that a system is not dependent on an individual personality. If there is a change in key personnel, then the systems for risk management will still exist. There is little doubt that following the above will only enhance a program's safety.

Given the potential catastrophic cost of legal actions associated with risk recreation an administrator should periodically bring in an outside expert to evaluate all associated

policies and practices. Using the specific items above and an outside consultant can help pinpoint those programs and activities that are safe and those that will lead to accidents.

The Bottom Line

Powerful, impactful outdoor recreation experiences should be encouraged. They do good things for good people. There is also an immutable moral (and legal) imperative to ensure that programs that provide such experiences do so with the utmost forethought and prudence. Applying risk management techniques takes effort and steadfastness. Yet the application is crucial. To not do so suggests naivete. Put another way, would you want your staff, your students, your child involved in a program where the management of risk was not addressed as well as possible . . . where a simple rappel could go astray?

Michael Mobley is Executive Director of the Breckenridge Outdoor Education Center, Breckenridge, Colo. He is a member of the Board of Directors for the Association for Experiential Education, the author of numerous articles on safety and risk management and is a professional consultant to private and public organizations on issues of safety, legal liability and program evaluation.

Effects of Outdoor Leadership Certification on Safety, Impacts and Program Standardization by David Cockrell and David Detzel

Will Americans always have the right to take whatever risks they like in the backcountry? Should we be free to camp and travel anywhere we choose in wilderness? Should certain practices regarding campfires, group size, water use and other "wilderness ethics" be standardized for all visitors? Should there be an organization or program to certify that wilderness users are competent? The restriction of freedom in wilderness runs counter to America's long-standing wildland recreation traditions of selfreliance, adventure and personal choice. It is difficult to imagine one "national standard" organization, similar to the Red Cross, that would certify wilderness users coast to coast. The road to legitimacy for such an organization would be paved with political in-fighting, controversial stands and compromised values.

Still, the idea of certifying wilderness users, first proposed by J.V.K. Wagar in 1940, continues to be an issue today (LaPage, 1984). There are perhaps three major reasons for a restricted national outdoor leadership certification system. First, the growing trend toward challenge and risk in wilderness use is associated with increasing numbers of accidents for which the public has traditionally paid (Petzoldt, 1974).

Second, there is a growing sensitivity to the ecological impacts of wildland recreation. Extremely light use levels appear to account for much of the impact (Cole, 1982), and prevention of impacts through user education is clearly preferable to site rehabilitation (Ittner, et. al., 1979).

Finally, there is a continuing increase in the numbers of formal educational, commercial and recreational



Wilderness managers have been interested in cirt heavier it in means a converg selective

organizations using wildlands as settings for their services. Often, formal groups are larger and they return many times to the same heavily-used areas. If the leadership practices for organized group leaders alone were standardized through certification, an appreciable increase in safety and reduction in impacts might be achieved.

In the 45 years since Wagar's (1940) seminal suggestion, advocates of outdoor leadership certification have generated a number of certification systems. The American Camping Association, the American Canoe Association, National Scouting Programs and many regional groups have offered a variety of certification strategies. The National Outdoor Leadership School (NOLS) has offered certificates to graduates of its Outdoor Educator's Course, and successful completion of a NOLS instructor's course is the required credential for employment as a NOLS instructor. Outward Bound has instituted a similar credentialing process for its instructors, and several Outward Bound Schools are now offering advanced professional courses for professional outdoor leaders.

Petzoldt (1974) also outlined a certification program which he felt addressed the major needs in the field. This program, the Wilderness Education Association's National Standard Program for Outdoor Leadership Certification (N.S.P.O.L.C.), is an experience-based college level curriculum. In 1984, the Wilderness Education Association (W.E.A.) offered programs through the organization's home office in Idaho and 23 affiliating universities. The program is a 36-day standard course which utilizes wildland travel and experiential learning

methods to teach students how to:

- Teach others to use and enjoy the wilderness with minimum ecological impact;
- 2. Safely lead others in the wild outdoors;
- 3. Exercise good judgment in a variety of outdoor environments and conditions; and
- 4. Demonstrate a basic standard of outdoor knowledge and experience.

While this organization's involvement with certification has been more extensive than any others to date, acceptance of the concept has been slow and tentative in the outdoor leadership community. The April 1985 issue of Camping Magazine is focused on outdoor leadership certification and details the continuing controversy. W.E.A.'s approach to certification has not yet been widely accepted as successful. This article reviews previous studies of the effectiveness and acceptance of certification and then reports the findings of an exploratory study to assess W.E.A.'s success in accomplishing its goals in these areas.

Previous Studies of Outdoor Leadership Certification

There have only been a few studies of leadership certification in outdoor education. Ewert and Johnson (1983) administered a ten-item, open-ended mail questionnaire to 54 selected prominent outdoor leaders from across the country. This sample reflected a lack of consensus about who the recognized leaders are in the field or which organizations might achieve dominance in certification. Seventyone percent of the respondents sup-

ported the concept of certification, but there was little agreement concerning the appropriate structure for accomplishing it.

Senosk (1977) surveyed 148 outdoor pursuits organizations in the U.S. in 1976 asking for their policies regarding certification of leaders. Only 30% had a certification or licensing system in effect at the time, but 52% expressed a need for such a system. Senosk concluded that while certification was not a widespread practice in 1976, there were indicators that the practice would be expanded in the future.

Two regional studies support Senosk's conclusions. Cousineau (1977) conducted a Delphi-type methodology to achieve consensus among members of the Council of Outdoor Educators of Ontario about the necessary components of a certification system. Seventy-six percent of his sample supported the initiation of a provincial certification scheme. The outgrowth of Cousineau's study was the development of *Leading to Share*, *Sharing to Lead*, a description of the council's suggested certification program (Rogers, 1976).

In Virginia, Cockrell (1985) found 70% of the Virginia Council of Outdoor Adventure Education to support the development of a statewide certification system (n = 53). Respondents favored a focus on certification of sponsoring organizations rather than individuals. There was strong support for limiting certification to the state, and requiring periodic renewals. Virginians were less supportive of certification than either the development of statewide standards or the establishment of training programs.

Support for certification seems strongest among whitewater paddlers. The American Canoe Association and American Red Cross have both offered certificates for canoe instructors for some time. Schulte (1975) found moderate support for instructor certification among agency representatives of the Interagency Whitewater Committee and members of American Whitewater Affiliates. Finally, Sheltmire (1979) argued strongly for certification of participants in a Canoe magazine article.

Wilderness managers have been interested in certification as a use allocation technique and as a means of improving safety. Stankey and Baden (1977) discussed "menit" as an alternative to pricing, reservations, lotteries and queuing. Merit is similar to certification in that permits are distributed on the basis of some demonstrable skill, knowledge or past behavior. The advantages of a merit system were identified as reduced per capita impact, restricted total wilderness use levels, and a greater appreciation of the opportunity and of the resource. Disadvantages discussed included the difficulty of agreeing about the necessary skills, testing knowledge, establishing standards and developing the procedures, personnel and facilities to assess ment. Possible discrimination against the handicapped and less skilled were also acknowledged. In general, however, Stankey and Baden (1977) felt that a ment system could achieve public support in certain situations.

Shelby, et al. (1982) assessed the opinions of backpackers and river recreationists for five allocation techniques: pricing, reservations, lot-



Outdoor leaders need to exercise good judgment in a variety of outdoor environments and conditions

tenes, queuing and ment. Sixty-six percent of the backpackers felt that a merit system would have little effect on their chances of getting a permit, but only 37% of the niver runners agreed. Merit was seen as fair by fewer than 40% of the users in both categories, and neither group gave ment a majority of support for acceptability. However, a majority of the backpackers were at least willing to try it.

Some beneficial effects of certification are suggested in this literature: more professional leadership among outdoor educators; lessened environmental impact; improved safety and consequent reductions in accident rates; lowered use levels; and greater appreciation of the wilderness.

Acceptance of the idea appears partial at best, with greatest reservations about certification of recreationists themselves. There is perhaps a trend toward slightly greater acceptance of certification among formal outdoor leaders in recent years.

Methods

The population for the exploratory study reported here consisted of all the graduates of W.E.A. certification courses from the first course in 1976 through the 1983 courses (N = 648). W.E.A. graduates were selected because W.E.A. is a prominent certifying organization for outdoor leaders, and the acceptance of W.E.A. certification has ramifications for the concept of outdoor leadership certifica-

tion in general. The entire population was censused because the potentially large number of inaccurate addresses of early graduates could result in a lowered return rate. Two third-class mailings and a first-class follow-up were sent to the entire population. Two hundred sixty-one graduates returned usable questionnaires for a response rate of 41.1%. One hundred fifty-five of these respondents (23.91% of the total population) were involved in outdoor leadership after their W.E.A. course and were used in this study.

A non-response bias telephone survey was conducted with a sample of 74 nonrespondents to the mail questionnaire. Thirty-five of these non-respondents (47%) were reachable through W.E.A. addresses or telephone directory assistance. No significant differences were found between questionnaires from respondents and completed interviews with 27 nonrespondents. The low return rate in the study was attributed to incorrect addresses caused by the high mobility of outdoor leaders.

The main instrument used was a thirty-two question, four-part mail questionnaire. To measure the effects of certification on program safety of W.E.A. graduates, three tactics were employed. First, rescues and evacuations per participant day were calculated for pre-certification employment, and these figures were compared with evacuations and rescues post-certification. Rescues were defined as the removal of an injured participant from a program site by another party. Evacuations were defined as removal by the victim's own party.

Second respondents gave self-re-

ports on the amount of influence W.E.A. had on accident rates in their programs. Third, five items assessed the respondents' knowledge of standard W.E.A. safety practice.

To measure the effects of certification on minimum impact practices employed, respondents gave self-reports of the influence W.E.A. had on ecological impacts of their current leadership activities. Also, five items assessed the respondent's knowledge of standard W.E.A. minimum impact practices. The demonstration of a "basic standard of outdoor knowledge and experience" was operationalized for this study as the extent to which W.E.A.'s 16 specific curriculum elements were taken back to the graduate's subsequent outdoor leadership position and implemented there.

The fourth goal for W.E.A., exercising good judgment in a variety of outdoor environments, was thought to be too complex to address through exploratory survey research. No effort was made to formulate questions to assess judgment.

The knowledge questions were developed from the W.E.A. curriculum outline. A draft of the scales was reviewed by a panel of "experts" (one W.E.A. instructor, the associate director of W.E.A. and two members of the W.E.A. board of trustees). A revised draft was then pilot-tested with 29 graduates of the Virginia Tech affiliate W.E.A. course. Based on the pilot test, one of the ten knowledge questions was considered ambiguous and replaced. Three questions were reworded to increase clarity, and distractors were replaced on two others to increase difficulty. The final scale was considered to be a content-valid

sample of information taught in the W.E.A. standard curriculum.

Results

Only 38 W.E.A. graduates in the sample (24%) had led trips both before and after their W.E.A. course. These respondents were associated with 25 total evacuations prior to becoming certified (.0013 evacuations per participant day), and 23 after certification (.0004 per participant day). They reported 11 pre-certification rescues (.0005 per participant day) and five post-certification rescues (.00001 per participant day). While both of these pre-post changes are in the expected direction, paired t-tests performed on the differences were not significant (p = .37 for rescues).

In addition to the above analyses, respondents were asked to rate the influence of their W.E.A. certification on accidents in their current leadership activities. On a four-point scale ranging from "had a negative effect" (1) to "helped greatly" (4), the mean score for 120 respondents was X = 3.08 (S.D. = .822).

Table 1 reports scores on the five items used to measure W.E.A. safety knowledge. Percentages responding correctly ranged from 40% to 78%. Interestingly, the Cronbach's alpha reliability coefficient for this "scale" was .0036, with the highest inter-item correlation being .13. There was almost no relationship between correct responses to one item and correct responses to another.

These findings show no clear pattern for the effects of certification on safety. There may be a slight reduction in evacuation and rescue rates, and graduates saw the certification course as somewhat helpful in improving

Table 1
Scores of Certified Leaders on Safety and
Impacts Knowledge Scales

Question	% Answering Correctly	n
Safety:		
Importance of sterile dishes	78.2	147
Reason for "release forms"	40.4	151
Responsibilities of "runners" in an evacuation	62.2	148
Acceptability of rappelling unbelayed	77.9	145
Minimum winter trip size	59.6	146
Conservation Practices:		
Acceptable wood for fires	74.0	146
Appropriate fire building techniques	89.9	138
The need to split up large hiking groups	74.3	148
Using soap in streams	96.7	151

safety. However, knowledge levels about safety were fairly low, and there was little internal consistency in graduates' responses to this subject matter.

To assess the effects of certification on the implementation of ethical back-country use practices, respondents were first asked to rate the influence of certification on the ecological impacts of their current outdoor leadership activities. On a four-point scale ranging from "had a negative effect" (1) to "helped greatly" (4), the mean score for 120 respondents was 3.48 (S.D. = .71).

Table 1 reports scores on five items used to measure minimum impact use knowledge. Percentages responding correctly ranged from 24% to 96%. The Cronbach's alpha for the scale was .24, suggesting low internal consistency for this subject matter as well. With removal of the one item which most respondents answered

incorrectly, the alpha for the four-item scale increased to .36. Thus, W.E.A. graduates rated the certification course as more influential for impact reduction than for safety enhancement. They remembered more of this subject matter, and there was slightly more consistency to their knowledge in this area.

The final question addressed in this study was the degree to which W.E.A. graduates used the skills and knowledge gained in their certification course later. Table 2 summarizes the percentages of respondents who reported implementing a curriculum area in their current program either because of their W.E.A. experience or for some other reason. W.E.A. appears most influential in the curriculum areas of expedition behavior, travel techniques in the wild outdoors, judgment and rations planning. Such subjects as basic camping skills, cloth-

ing and equipment selection, and environmental ethics are commonly taught but not as often because of W.E.A. influence. Graduates are implementing a mean of 4.54 (S.D. = 4.94) W.E.A. curriculum areas out of 16 into their current programs. Six percent implemented all 16 subjects due to the certification course, while 33.5% of the graduates implemented none.

Discussion

Even though the safety records of W.E.A. graduates did not improve significantly with certification, one must conclude that the accident rates reported were extremely low. Perhaps W.E.A. is attracting some outdoor leaders who are already safety-conscious and well-trained in this area, or perhaps persons who are attracted to a certification program are consistently more cautious in the leadership activities they perform. These graduates do not appear to be benefiting greatly from this aspect of certification. They rated the influence of the course on their safety as moderate. They reported that curriculum objectives relating to first aid, emergency procedures and survival were only "partially met" on their courses; and only 23.8% implemented this curriculum area later due to the W.E.A. experience.

The low knowledge level and low internal consistency measure on the safety-knowledge scale may indicate that W.E.A. safety practices are not well standardized across courses. In its attempt to reach more outdoor leaders across the country by decentralizing, W.E.A. may actually be hindering its efforts to promote a basic standard of outdoor knowledge in this area. Standards are difficult to

Table 2
Standardization of the Certification
Curriculum in Graduate Leadership Activities

W.E.A. Curriculum Area	% Implementing Due to W.E.A. $(n = 155)$	% Implementing From Other Influences
Judgment	37.4	21.9
Leadership	27.7	31.0
Expedition behavior	45.2	19.4
Environmental ethics	29.7	44.5
Basic camping skills	21.3	49.7
Rations planning	36.1	20.0
Equipment selection and use	25.8	41.9
Clothing selection and use	23.2	45.8
Health and sanitation	30.3	37.4
Travel techniques in the wild outdoors	39.3	29.0
Navigation	20.6	40.0
Weather	21.9	32.9
First aid, emergency procedures and survival	23.8	38.7
Natural and cultural history	20.6	37.4
Specialized adventure activities	20.0	36.8
Group processes and communication skills	27.7	34.8

maintain when instructors and programs are dispersed throughout the country. Additional training experiences of W.E.A. instructors may also influence the curriculum content they communicate, and thus increase variability.

There is evidence in this study that W.E.A. is more effective in fostering ethical backcountry use practices. Graduates reported a stronger influence of the course on their subsequent program impacts than on safety. Curriculum objectives for environmental ethics averaged "largely met" on their courses. A

moderate number are implementing environmental ethics because of their certification training. Moreover, knowledge scores in this area were somewhat higher than for safety, and the internal consistency of the knowledge scale was slightly higher.

Finally, it appears that W.E.A. has not been highly successful in standardizing its curriculum areas into programs across the country. The certification course appears highly influential in a few areas, but some W.E.A. curriculum areas were being taught in outdoor programs prior to W.E.A.'s influence and may be stan-

dard practices already. Others are just not widely adopted by W.E.A. graduates. These may be inappropriate in certain settings or program philosophies. Alternatively, the training received through the W.E.A. course itself may be inadequate to provide leaders with the confidence to teach the material themselves. It might be possible to enhance the effectiveness of the certification course by discontinuing curriculum areas which are already well standardized in programs without W.E.A.'s influence. This would allow W.E.A. to emphasize curriculum areas in which they are influential, but for which more attention would produce better standardization.

It would clearly be premature to claim that the Wilderness Education Association is the "Red Cross" of outdoor leadership. Forty-one percent of the program graduates are not involved in formal outdoor leadership, and 33% of those who are involved are not implementing W.E.A. curriculum areas into their work. However, the program is growing. W.E.A.'s emphasis is not on indoctrinating graduates with absolute rules; rather, there is a cooperative effort in W.E.A. to explore new and better techniques of safe outdoor adventure. This study has suggested that with a more narrow focus W.E.A. might largely realize its goal of standardizing minimum impact use practices in organized outdoor programs.

Two keys to any successful large scale certification program have been suggested by this study. First, the skills for which certification is offered should be clearly defined and relatively unique to the profession addressed. Expedition behavior and environmental ethics are complex skills criti-

cal to large or long wilderness trips. An outdoor leadership training and certification program might legitimately tackle this content area. Weather prediction, on the other hand, is a multi-faceted skill not focused in the outdoor leadership profession. Instruction and certification in such content areas should come from other professions.

Second, a large scale certification program must somehow encompass the length of time necessary to teach the skills that it claims to teach. Perhaps baking over an ethically sound campfire may be taught in one month, but judgment under stress might not be learned in a year. Perhaps an apprenticeship period, as suggested by Rogers (1970), or an autonomous certification board independent of training institutions (Ewert 1985) would alleviate the pressure on one-shot, comprehensive training/certification packages.

Perhaps it is healthy for a field of endeavor to deliberate slowly about certification in the struggle toward professionalism. This is perhaps especially true if outdoor leadership certification is a step toward the certification of wilderness users themselves. The standardization of wilderness use practices for the protection of the resource and the visitor is a fundamental shift in our American tradition of freedom in wilderness recreation. Resistance to certification and diversity of outdoor leadership styles may be more signs of strength in our culture than lack of professionalism.

David Cockrell is an assistant professor and David Detzel is a research assistant of Outdoor Pursuits Education in the Division of Health, Physical Education and Recreation at Virginia Polytechnic Institute and State University, Blacksburg, VA.



If the leadership practices for organized group leaders alone were standardized through certification, an appreciable increase in safety and reduction in impacts might be achieved.

Outward Bound and Adventure-Based Education

by Ian Wade

A leading organization in the field of adventure-based education is Outward Bound. This article, written by an Outward Bound administrator, offers a brief history of this non-profit organization followed by a discussion of issues relevant to federal land managers.

Today, the term "Outward Bound" is close to becoming a household word. It is popularly associated with challenge, self-discovery and wilderness adventure. But how did Outward Bound become so well known? What are its goals? How are federal lands used to achieve them? Finally, how can Outward Bound and similar agencies best cooperate with the managers of public or private lands?

The first Outward Bound school was founded in England in 1941 to prepare young merchant seamen for the stresses of working on shipping routes infested with German submarines. The experiment proved so successful that in the next two decades Outward Bound schools sprang up in many countries around the globe. In 1961, Outward Bound came to the United States. Since then, more than 120,000 students have taken Outward Bound courses in this country.

"Outward Bound." The phrase has been used by sailors for hundreds of years to describe that moment when anchor is weighed and a vessel is committed to the risks of the open sea. Without commitment and action, the ship's crew would remain untested in the safety of the harbor. Without a sense of adventure, new worlds would remain undiscovered. Like the sailors of old, Outward Bound students are presented with a challenge and an opportunity for adventure.



Outward Bound rock climbing and rappelling activities are carefully supervised with many backup systems utilized.

But for what purpose? And to what end? What exactly is it that Outward Bound schools teach? Many people think of Outward Bound as a "survival school." But this, at least to the extent it conjures up images of edible plants and kids gobbling ants, is misleading. Outward Bound is primarily concerned with the survival, not of the body, but of the spirit. In the words of its founder, Kurt Hahn, an Outward Bound course should stimulate students to develop "an enterprising curiosity, an undefeatable spirit, tenacity in pursuit, readiness for sensible self-denial, and, above all, compassion."

It is important to stress that Outward Bound is a *school*. Our mission is educational rather than recreational. Education should, said Hahn, "impel people into value forming experiences." While most schooling in this country tries to fragment the student, divvy him or her up for purposes external to one's own needs, Outward Bound tries to help put a student back together so that he or she can assume responsiblity for the course of the student's life.

How, in little more than 20 years, did Outward Bound become a leader in adventure-based education? In retrospect, when Outward Bound came to America it landed on unbelievably fertile soil. By chance the Outward Bound philosophy evoked our most cherished myth: that of a self-reliant woodsman, forging his way through the wilderness. Outward Bound was not just in tune with our myths — it was in tune with our times. President Kennedy had just been elected. He would call his domestic program the New Frontier.

In this heady atmosphere, a school

that suggested it would, in 26 days and for a reasonable price, transform the wimpiest youth into a mountain man was a can't-miss proposition. In 1963 a single article on the new school brought in 30,000 inquiries. Another article was entitled "Marshmallow Becomes A Man." Throughout the early 1960's it was not unusual for student enrollment to double each year.

By 1970, Outward Bound's influence had begun to be felt in other institutions. "Learning by doing," "experiential education" — ideas at the core of the Outward Bound philosophy — came into vogue. Numerous "Outward Bound adaptive programs" were founded at colleges and high schools throughout the nation.

Today, there are five American Outward Bound schools -- in Maine, North Carolina, Minnesota, Colorado and Oregon. While in the past, an average Outward Bound student was a teenage boy or girl who attended a 26-day "standard" course, it is no longer so easy to characterize our students or program. In addition to our standard courses, Outward Bound now offers courses designed to meet the needs of corporate executives, men and women over thirty, alcoholics, Vietnam veterans and troubled youth. In addition, our short, intensive courses of ten days or less are increasingly popular.

Although not every Outward Bound course takes place on public lands, most do. It's safe to say that without national forests, parks and wilderness areas, Outward Bound and similar organizations such as the National Outdoor Leadership School

(NOLS) and the Wilderness Education Association (WEA), could not exist. Consequently, these organizations have a vital and abiding stake in maintaining good relations with those who manage those lands. We do our utmost to ensure that these relationships are harmonious and mutually beneficial.

In most places, Outward Bound is regulated much as are outfitters and guides. But there are some unique differences.

First, all Outward Bound schools are non-profit educational organizations. As do other such organizations, we pay a fee, usually based on "student-days," for using federal lands. In order to keep tuition costs affordable and continue our ambitious scholarship program (a third of all students receive financial aid) we hope those fees remain reasonable.

Second, our numbers, relative to those of outfitters and guides, are growing. In years to come you will probably see more of us rather than less. In 1984, for example, we had nearly 12,000 students and 156,000 student program days making us probably the largest single organizational user of federal land.

Outward Bound places a strong emphasis on low-impact camping. We don't pitch our tents on the shores of popular lakes. We don't poach deer or shoot marmots. We rarely build fires, cooking instead on stoves, and we strive to adhere to the axioms of "pack out what you pack in" and "take only photographs, leave only footprints, and kill nothing but time." These beliefs are inculcated in our students so that later in life they will demonstrate a reverence for public lands.

A third aspect of Outward Bound is an emphasis on *service*. The concept of service is central to the Outward Bound philosophy. On each course, students and staff typically devote a day to a "service project." Sometimes a patrol of students might clear deadfall from a section of trail, rebuild a bridge or clean up fire scars and trash around a heavily used lake. The possibilities are endless.

Given recent budget cuts, many federal agencies no longer have as much money available for basic maintenance and trail crews. Herein lies an opportunity. If Outward Bound patrols frequent the land you manage, don't hesitate to contact us with suggestions for possible service projects.

Safety

How about safety? How safe are outdoor adventure programs such as Outward Bound or NOLS? And what are the procedures for dealing with accidents and evacuating injured students? Although risk and hazardous environments are essential to the Outward Bound process, we do not consider our courses "risk recreation." For obvious reasons, the continued viability of Outward Bound as an organization lies in minimizing risk and, as nearly as possible, eliminating accidents.

In the early years of operations serious accidents took place in some Outward Bound programs which caused us to establish the most comprehensive safety system of any outdoor program. We have now had over 70,000 students participate in Outward Bound without serious incidents and we are confident our safety systems are effective. Many outdoor

Outward Bound participants traverse a glacier.

programs now look to Outward Bound as a model of how to organize their own safety systems.

The most sensational—and to the

uninitiated, the most dangerous — activities on an Outward Bound course appear to be rock climbing and rappelling. Yet, because these ac-

Sally Falcone, Outward Bound, Inc

tivities are so carefully supervised and so many backup systems are utilized, they are among the safest things students do. In fact, our records show that a student is safer rappelling down an overhanging cliff than hiking along a trail.

Statistically, our students are safer in the woods than on a highway or football field. The Outward Bound safety system has many components to it:

- We have clearly articulated and widely shared safety objectives.
- Safety policies are established by the national governing body and their implementation monitored by a full time staff person.
- Each OB school develops operating procedures for the specific activities it undertakes, student populations dealt with and staff experience levels. These are reviewed and approved by the national staff before any new program can begin operation. In this way, experience is shared between schools and many potential mistakes prevented.
- Our staff selection process is rigorous. We hire only about 10% of the applicants and then provide comprehensive training and at least one season's apprenticeship. Field supervisory staff provide evaluation and training during each course and serve as monitors of the safety and quality of programs.
- Our equipment is carefully selected and tested.



Outward Bound students are presented with a challenge and an opportunity for adventure.

- The level of supervision is carefully planned depending on the degree of real risk.
- We have collected accident data on all injuries, illnesses and close calls for over 15 years, and have a wealth of data which help us identify accident trends and proactively introduce appropriate safeguards. For example, we noticed several cases of partial belay failures which could have had serious consequences. We now back up each belayer for rock climbs or rappels. We are also keeping safety data for other programs so that we can come up with industry-wide and comparative statistics.
- We have national safety review teams visit each program every 2 years and local review teams every year. These reviews serve as a check on routine supervision systems and are a means of sharing expertise around the OB systems.
- Perhaps most importantly, students are more often exposed to "perceived" risk than the real thing.

Despite all precautions, occasionally a student will twist a knee or break an ankle. We take pride in the fact that when students do need to be evacuated, we perform the evacuation ourselves. (As a rule, these evacuations entail carrying out by

litter, the materials for which we always have with us.) On those rare occasions when ground transport is contraindicated — a back injury, for instance — we have used helicopters. In such cases, it is our procedure, spelled out in every instructor's manual, to first contact the appropriate agency to secure the necessary permission.

Outward Bound and similar safety systems have been used as the basis for the book of common practices which the Association for Experiential Education recently published for use in the outdoor profession. A recent Outward Bound initiative to help upgrade safety in the profession is the establishment of a National Training Institute for staff working in outdoor adventure programs.

Adventure-based educational activities are different in some important respects from the outfitting and guiding business that land managers have had to deal with historically. The purpose is different, staff and student responsibilities are different and students are empowered to assume responsibility not protected from all risks. We strive to involve land managers, in the areas we operate, with our groups to gain better understanding of our safety procedures and program in general.

Because courses actively seek out wild and remote areas, contact with participants may be minimal. It is for this reason that land managers are encouraged to attend a course start to end, or come to one of the training sessions for staff. By spending a few hours talking with students and staff, understanding of the program will be greatly enhanced, and the staff will better understand the needs of the

land managers.

Conclusion

Federal lands are essential to the adventure-based educational process. We recognize our debt and responsibility to those lands and to those who manage them. We strive to educate those we take onto the federal lands on sound conservation and safety practices and to comply with whatever management regulations are established. And we are involved in service work and active care of the lands we use. Finally adventure-based educators are anxious for an increasing dialogue with federal land managers.

Iau Wade is Vice President for Program and Safety with Outward Bound USA, 384 Field Point Road, Greenwich, Conn. 06830, telephone (800) 243-8520.

Regulating Risks in the Nation's Parks

by Leo H. McAvoy, Ph.D. and Daniel L. Dustin, Ph.D.

Americans are participating increasingly in risk recreation activities. Rock climbing, river rafting, hang gliding, wind surfing, kayaking and many other forms of recreational challenge are occupying the attention of people who wish to test themselves at the edge of life. Parks, understandably, are often the preferred settings for these undertakings. They offer spectacular backdrops for spectacular feats of human accomplishment.

This upsurge of interest in risk recreation raises several different questions for managers of park resources. Are risk recreation activities appropriate for parks? If not, why? If so, what are their costs and benefits? What responsibility does the park agency have with respect to the management of these activities? And finally, to what extent do park personnel have a duty to protect risk recreationists from the consequences of their mistakes or from other unforeseen environmental hazards?

The rewards of participation in risk activities include a heightened sense of aliveness; a total involvement of emotional, mental and physical capabilities; feelings of accomplishment, self-fulfillment, and personal growth; and a general sense of life enhancement.

The negative aspects associated with risk activities are also known to park managers. These include potential conflicts with other park visitors; the potential of injury and death to participants; legal liability concerns; and in some cases environmental damage to the resources (damage to rock faces from climbing, litter at hard-to-reach sites, trampling of vegetation, etc.). The problem comes when managers attempt to alleviate

the potential negative aspects of risk activities by developing regulations which may diminish the rewards sought by the participants.

Our purpose in writing this article is to examine current policies in this area and to provoke thought and discussion about the future of risk recreation in the nation's parks. We proceed from the assumption that it is better to consider alternative futures, to select a preferred one, and then to work toward its creation than to resign ourselves to the prospect that the future will unfold largely by accident and that the best we can hope for is to be able to react responsibly to crises as they arise.

Risk Recreation in the Parks

Appropriate or not, risk recreation is a reality in the nation's parks today. Mountain climbers scale El Capitan in Yosemite Valley and a number of other cliffs in national, state and local parks. River runners challenge the Colorado River as it flows through the Grand Canyon and a number of smaller streams managed by state and federal agencies. Backpackers chance meetings with grizzly bears in the backcountry of Yellowstone and Glacier National Parks. Typically, these outdoor enthusiasts appreciate the seriousness of the risks they are taking and prepare themselves accordingly.

At the same time, parks are also frequented by people who are unaware of the potential hazards awaiting them in the out-of-doors, who strike out on their own ill-equipped for any emergencies, and who subsequently become "victims" of their own ignorance. These are the people who fall into thermal pools, who suf-

fer injuries inflicted by wild animals while trying to get a better photograph, and who perish from exposure while hunting or on hikes.

Regulating Risks in Parks

The park management agency is in the difficult position of trying to develop policies and programs to accommodate those who seek out risk recreation activities by design while at the same time trying to protect those others who engage in risk recreation only by accident. Park rules and regulations are often inconsistent in their effect as a result.

Consider, for example, the backcountry permit system currently operating in Sequoia-Kings Canyon National Parks. This system divides the backcountry into zones and selected camping areas. When a permit is obtained, the backpacker files an itinerary detailing the zones and camping areas to be visited. While this system makes good managerial sense in terms of dispersing use, reducing environmental impacts, and offering a measure of protection to those backpackers who desire assistance in the event of an emergency, it also detracts from the sense of challenge, risk and self-reliance that draws other backpackers into the interior of the park in the first place.

Backcountry permit systems are only one of the means by which park agencies manage or regulate risks taken by outdoor recreationists.

Other means range from site management (constructing signs, erecting barriers, channeling use, etc.), to informational, educational, and interpretive services (e.g., brochures, information booths, and campfire programs warning visitors of environ-



mental dangers), to the imposition of specific procedure policies for selected risk activities (e.g., climbing requirements and river running regulations).

Regulations prohibiting or severely limiting participation in risk activities have been imposed in a number of parks. Rock climbing has been banned from many parks in Ohio, Illinois and Indiana, and a ban on climbing is being proposed for those in Iowa. Some of these regulations are initiated to preserve environmental areas such as cliffs, rock faces and fragile vegetation from erosion caused by inappropriate use and overuse. But, many of the regulations are an effort by managers to protect park visitors from potential harm.

In each of the above cases the managerial intent is to facilitate risk recreation involvement while minimizing the chances of something going wrong. While this beneficent attitude is admirable, it strikes at the heart of risk recreation experience itself because it erodes the risk-taker's sense of self-managment. Risk recreationists want to control the nature of the risk themselves.

Complicating the issue is the fear of legal liability which plagues many park managers. Agency personnel are understandably quick to impose regulations and bans if they believe these regulations will help protect their agencies from devastating lawsuits. Although there is no congressional mandate to guarantee visitor safety in parks, policies and procedures in many park agencies reflect a high degree of concern for visitor welfare. This concern can be explained by both the perceived threat of liability for visitor accidents and a sense of moral responsibility to assist people

in distress. The resulting question, of course, is to what extent does this park agency concern for visitor safety undermine the elements of risk recreation that make it so attractive to its devotees?

Regulating risks in parks, then, has both benefits and costs. The benefits can be measured in the form of enhanced visitor safety and to a certain extent environmental protection while the costs can be measured in the form of a reduced sense of freedom, challenge, growth and responsibility.

Do the benefits of regulating risks in the nation's parks outweigh the costs? It depends. It depends on what we, as a society, value. It depends on what we want parks to be. If we value safety and survival above all else, then we will choose to regulate and limit risk recreation — perhaps even legislate it out of parks because we view it as inconsistent with the ideals of American parks. On the other hand, if we value personal freedom and growth above all else, then we will be more likely to encourage risk recreation activities in parks perhaps even promote them because we view them as the epitome of the outdoor recreation experience.

A Future of Increased Regulations

Where, then, do present policies seem to be leading us in terms of regulating risks in parks? Although the direction is not entirely clear, the future scenario portrayed by William Leitch in "Backpacking in 2078" (Sierra Club Bulletin, 1978) seems likely. In this fictional account, Leitch describes a managerial mentality that is governed by a commitment to vis-

itor safety and environmental protection. Backpackers are equipped with transmitters to communicate their whereabouts to agency personnel in case of an emergency, and wild animals are implanted with an electronic device which can be activated to stun them if they pose a threat to recreationists.

While Leitch's article reads like science fiction, it is based on scientific fact. The technologies he describes already exist in rudimentary form. It is simply a matter of an administrative philosophy that values visitor safety and environmental protection being assisted by technological advances that makes the philosophy more and more workable.

If, as currently seems to be the case, recreationists continue to expect governmental search and rescue personnel to bail them out of self-imposed predicaments, they will be increasingly able to do so. What will be lost in the process, of course, is much of the essence of risk recreation experience. The sense of self-direction and self-reliance that seems symbolic of the heritage of American wilderness and parks may be lost. What remains of risk recreation will be largely illusory.

A Less Regulated Scenario

It is also possible that the future may be characterized by less governmental involvement in the affairs of risk recreationists. This alternative scenario would be one of less regulation of risk activities. It would stress a management strategy that recognizes the need for growth, freedom of choice and self-reliance over the need for personal and agency safety. In this scenario the park manager would

be especially sensitive to the needs of the risk seekers. Regulations would only be imposed when necessary to either preserve the integrity of the environment or to preserve the freedom of other park users by alleviating conflicts between user groups.

The emphasis would not be on the safety and the survival of the participant, but rather on the enhancement of the participant's opportunity to achieve a full experience and to satisfy experiential goals. The emphasis would be on the quality of survival rather than only on survival. Rather than regulation with good intentions, as in the previous scenario, this scenario is characterized by non-regulation with good intentions.

In a less regulated future, risk participants would be informed of the primary risks in a particular park area, informed of the appropriate behavior necessary to protect the environment, and then allowed to participate in their risk activity as long as they did not infringe upon the freedom of other park visitors. The risk participants would decide for themselves if they had expertise necessary to participate safely in the activity. The participants would assume complete responsibility for their own safety and the safety of those in their group.

An indication of movement toward a less regulated approach is evident in Denali National Park and Preserve's (Alaska) policy regarding mountain climbers. The former rules on equipment inspection, certification of leader's and participant's skill levels, and the carrying of two-way radios for emergency purposes have been replaced by a policy of climber registration only. This administration action reflects a managerial interest in

returning responsibility to the risk recreationist. Whether such interest will be sustained in an age of insurance mentalities and associated lawsuits remains to be seen. However, legal authorities interpreting laws and cases related to risk recreation have tended to conclude that risk participants may be more responsible for their own actions than some park agencies realize.

It is even possible that someday risk recreationists will be given complete responsibility for their personal welfare, that governmental agencies such as the National Park Service will absolve themselves from responsibility for visitor safety by designating certain no-rescue areas where people will have the freedom to be completely on their own. While this proposition has caused much debate in the current literature (see, for example, our article "The Right to Risk in Wilderness" in the Journal of Forestry, 1981), worry over legal liability, Good Samaritan ethics and political pragmatism make its adoption problematic at this time.

Concluding Thoughts

Whatever form the future may take with respect to the regulation of risks in parks and other outdoor areas, one thing is certain. We cannot escape responsibility for that future. The planning and policy decisions made today by park management agencies will shape the character of outdoor recreation opportunities available in the nation's parks in the years to come. Our task is to decide whether the benefits of risk recreation in parks — the feelings of accomplishment that come with exercising personal freedom and responsibility in the pur-

suit of challenge and growth — outweigh the costs— periodic injury and loss of life and the possibility of lawsuits. And this decision, in turn, depends on what values are embraced and provided for through outdoor recreation policies and programs.

Ideally, the future will include both of the aforementioned scenarios. The nation's parks will offer a gradation of recreational challenges and opportunities complemented by increasing degrees of freedom so that those who wish to experience the parks in relative security and safety will be able to do so while those who wish to test themselves and be self-sufficient will also have their place in the parks. This necessitates unbundling competing desires for the parks, as Joseph Sax has argued in Mountains Without Handrails, and offering them separately as choices to be faced.

In order for park managers to achieve a desired future in relation to risk activities it is important that they make explicit decisions about what future they want, what values they want to reinforce, what experiential opportunities they want to preserve in parks, and what opportunities are appropriate for outdoor recreation spaces in this country. Otherwise, risk opportunities may either become unmanageable, or vanish from our parks.

The future is open-ended and full of possibilities. It behooves those of us who are concerned about the future of the nation's parks to be openminded and to take advantage of those possibilities. The parks of the future will be what we allow them to become.

Leo H. McAvoy, Ph.D., is Associate Professor and Program Coordinator, Division of Recreation, Park, and Leisure Studies, University of Minnesota, Minneapolis, Minn. 55455.

Daniel L. Dustin, Ph.D., is Professor and Chair of the Department of Recreation, San Diego State University, San Diego, Calif. 92182.

The Challenge in Managing High Risk Visitor Activities

by Richard L. Wilburn

Do your employees have a favorite name used in-house to describe the typical park visitor? If they do, it is probably not one that the manager would choose to use at a meeting of the local Chamber of Commerce. Have you ever stopped to think about why such feelings exist among park and recreation area employees? Where do such expressed attitudes come from and if they are valid?

Experience as well as common logic suggests that the majority of visitors are in fact good citizens who use the facilities in a fully acceptable manner. However, there are identifiable small groups that do things or conduct themselves in ways that are contrary to management's concepts of acceptable facility use. In some cases, these 'unacceptable' uses endanger the resource, the health and well being of the groups, and the person who must sometimes rescue them. These uses may also be illegal. This article will consider those activities that create hazards to people, but are generally not violations of the law. Some are distinctly foolish or thoughtless and some are done for selfish or self-enhancing, grandstanding reasons. Experience has clearly demonstrated that the end result is far too often damage to property, illness, serious injury or death.

Managing areas that could be hazardous to visitors and have led people to participate in high risk activities is an important challenge. It is surprising that so many managers have not approached the problem in a systematic, professional way, but instead have relied on some hit-ormiss, trial-and-error format. Many are attempting to reduce visitor accidents without first conducting realis-



While popular with children, floatation devices can be extremely hazardous to children who are unsupervised, unable to swim and who are without floatation vests.

tic studies to answer such questions as: (1) what are the underlying causes or sources; (2) who are primarily involved; (3) where do the visitors come from; (4) what expectations, attitudes and cultural backgrounds do they bring with them; (5) what activities are they involved in and why? Assuming we can find reasonable answers to such questions, can we develop programs that will be effective in lowering serious visitor incidents? The first step must be to identify the problem(s) before we can find a satisfactory solution.

In this article, we will review some basic information gained from visitation studies, accident review and analysis. The solutions to be found will be subject to local needs and conditions for which there are few generalized answers. The resource that the park manager is obliged to protect is often the hazard that may cause visitor injury or death. The

hazards of a hot spring in Yellowstone are different from the hazards of riptides along the ocean at Cabrillo. The specific action programs necessary in managing them are also different; although, there are some overlapping aspects.

Who is the Visitor?

The visitor, to many park and recreation areas, is a stranger unfamiliar with the environment. It is a mistake to provide facilities such as trails, campsites, etc., designed with the knowledge and expertise of seasoned employees without considering the lack of experience of an urban visitor. Routine activities by prepared employees in high mountain areas may, for the unprepared visitor, result in tragic exposures to hypothermia, lightning strikes, falls from steep cliffs or being lost. The simple act of driving a motor vehicle in a strange environment, e.g., a winding, steep mountain road, may be totally new to an urbanite. Improper use of the car's brakes and gears may result in a serious accident. To this visitor, driving the family car becomes a high risk activity.

The typical visitor comes to play and have fun in recreational areas. Smooth lawns, playgrounds and enjoyable surroundings lull the urban visitor into a sense of well being and security. However, an environment such as a primitive campground which presents the need to use potentially dangerous tools such as axes or gasoline fueled appliances, may result in injury. They are also frequently real threats to employees who are very familiar with the park and its environment. Camping tools can also become play objects for children.

Playing in outdoor wild areas, under controlled conditions, generally includes activities not normally considered to be high risk. Hiking, swimming, boating, fishing and camping do not normally conjure up images of potential hazard. However, hiking at high elevations with steep trails, precipitous cliffs, summer thunderstorms, lower oxygen levels and possibly freezing cold nights results in serious injury or illness to many visitors each year. Boating on a mountain lake on a windy day can be dangerous because wind creates changes in wave action and currents. Even an experienced boater may have difficulty staying afloat.

You Think That Was Great? Watch Me!

If there is a more spectacular way to climb a peak or to dive into a crystalline mountain pool, there will be people seeking to find it. If one per-



Free-climbing without the proper equipment and footwear is a common cause of accident



An exhilarating flight in a superh setting – recommended only for proven experts.

son, or a group, performs a new, different or daring activity, within a short time there will be others attempting to do it better, faster or higher to "set a new record."

As technological advances produce new equipment or machines that can be diverted into high adventure toys, thrill seekers will seek ways and locations to use it. When the machine is new, it will attract relatively few enthusiasts. But, through advertising campaigns, manufacturers will spread the word of the thrills inherent in this exciting, new sporting machine that soon becomes a "must have" for sports enthusiasts. Soon, associations will spring up with well-defined standards, rules and national competitions. Naturally, the use of park and recreation areas will be demanded by the associations as the logical locations for the competitions or meetings. Manufacturers are regularly evaluating such new equipment to ascertain if there is a potential profit to be made.

Managers should expect to see an

increasing demand for these high thrill, high risk activities in their areas. Witness the proliferation of such activities as snowmobiling, off-road biking, hang gliding, high speed boating and water skiing. A new thrill coming into being is the ultra light, a hang glider with a motor. Prominent park areas are well suited to provide an audience for those adventurers who like to be seen. An example of this is the hang glider enthusiast who has pinpointed Glacier Point in Yosemite National Park as a preferred use

area. There are high elevations, spectacular panoramas, awed observers and the adulation of peers.

Studies have shown that it is most often young males between the ages of 15 and 25 that are disproportionately involved in fatal accidents. This fatality rate in young males has been studied by sociologists who have provided us with some information that could suggest to management some corrective actions. The leading causes of fatal accidents continue to be drowning, motor vehicle accidents and falls from high places. The number of women involved in fatal accidents has been historically low; however, there has been a gradual increase, which may be related to changes in cultural values and expectations.

These young people are often described as part of the "baby boom" generation. It is possible to identify some basic value differences between this generation and the older age group (over 50). Baby boomers have been described as "individualists" while the older generation is more "traditionalist." Many individualists have been further described as thrill seekers who reject authority and may do the outlandish as a part of their social expectation. These individuals may ignore a warning sign simply in defiance of establishment rules.

The traditionalist will seek stability and adhere to group values. The individualist will seek change, experimentation and a means of self-expression. The older generation may be content to have fun in familiar, less adventurous ways while the "baby boomer" may want to experience new, different and exciting things. The idea of doing your own thing or

to do what feels good is more likely to be found in the younger group.

Do Our Present Methods of Warning of Hazards Work?

Considering the above information about the nature of high risk visitors, it may be necessary to change our messages that warn of hazards. It is paramount that each manager conduct adequate studies to identify the leading hazards, the high risk activities and the people involved in accidents. The warning messages should be geared to the specific target audience. Older groups, who are more likely to accept authority, respond favorably to signs and verbal information from uniformed rangers or other management figures.

These same approaches may have an opposite and negative impact on many younger visitors who might take the warning as a challenge. These visitors, who are generally more concerned about the reactions of their peers than of park managers, may take warning as a dare and willfully engage in the activity to influence their friends and companions. This, of course, places additional pressure on the other members of the groups to equal or better the previous feat for fear of being labeled a "chicken." The uncertain end result of trying to wade in a treacherous mountain stream may pose a lesser threat than the known loss-of-face.

Since the younger group is not readily responsive to authority, don't use uniformed rangers to get your message across. Engage the assistance of a popular rock star, a disc jockey or similar popularly-recognized figure to deliver the message. Put

messages in college or high school papers, in popular radio or television programs oriented to the targeted age group and similar specific media spots. Be sure the language used is acceptable to the target group. Insure that your visitors know that the conditions in the park are real and can cause harm. This is not an amusement park where the equipment has brakes and can stop before an accident can occur.

Richard I . Wilburn is Chiet, Branch of Safety Mangement for the National Park Service.

The Power and Impact of Risk Recreation For Special Populations

by Michael Mobley, Judy Deinema, Kelly Rowell and Gini Bradley

Randy stood at the base of the cliff entangled in a web of ropes and carabiners. His helmet was oddly tilted to one side and refused to fit on his smooth, hairless head. The group was growing tired of waiting as the youth continued to stare at the wall of rock he was supposed to climb. His instructors offered words of encouragement, but Randy did not hear them. He was concentrating on one thing — his own fear. Several more minutes of intense concentration passed. Finally, he decided he was ready to climb.

The first ten feet were the most difficult. Randy chose to follow a crack in the smooth face of the cliff pitch. He struggled several times to understand how to use the crack. His safety rope pulled tight continually. The frightened youth wimpered for those above to let him down. At that moment, his request was not an option, and the staff and students below continued their cheers of encouragement. Randy's chest and upper body seemed to be glued to the rock. If he pushed hard enough, perhaps the rock would take and absorb his shaking body. He continued his slow ascent. With a final push, he was over the top. And both his friends and staff were there to greet him with embraces.

At first, Randy's story probably does not sound very different from other exciting tales of rock climbing. However, there is one great difference. Randy has cancer and made his climb using one leg. The impact and significance of Randy's performance goes far beyond the actual climb and into the purpose of risk recreation for all types of special needs populations. Risk recreation is a valid and effective



An instructor assists child in walk through the woods

form of therapy for people with varying abilities and disabilities.

The Breckenridge Outdoor Education Center (BOEC) is a national leader in outdoor adventure for a

wide variety of special populations. The driving philosophy behind the center is to build self-confidence, promote personal growth and to encourage independence. Risk recreation has been used by the BOEC for the

past nine years as an educational tool to aid each participant towards the achievement of these goals. The BOEC creatively molds a program of challenging activities that meet the needs of its varied clientele. Consider the case of Crystal.

Crystal

The axe, held high above her diminutive, five-foot frame, quivered slightly. Suddenly, it dropped with determination. The section of dried pine split perfectly. Up went the axe. Down again. The blade neatly cleaved another piece of firewood for the evening meal.

Crystal's hands were an odd combination of small cuts and callouses, covered by a layer of grime. Hard to imagine that three weeks earlier these same hands sported bright hot pink fingernails one-and-a-half inches long. Her bleached blonde hair had been sculptured into a fluffy Farah Fawcett-type style. Now the hair was matted down and all but hidden under her bandana. Her round face and oval eyes were used to being covered with creams and bright make-up. Now there was only sweat. Before coming to the BOEC, Crystal was not a model. She was a 16-yearold prostitute.

On day eight of her course, she was developing, through experience, an immutable image of herself that was incompatible with being a prostitute. Determination, self-reliance and self-respect were all emerging. These feelings and attributes were new to Crystal. They made the thought of returning to the streets abhorrent.

How does risk recreation work?

Personal growth occurs as the par-

ticipant stretches beyond his or her technical skill level and thereby enters a risk situation. When risk is encountered and success occurs, the individual develops an image of self-confidence and self-respect.

In a cognitive domain, it is the variety of stimuli which allows learning to occur. The foreign nature of the natural environment is conducive to innovation and creativity. Psycho-motor skills are continually tested in a wilderness setting. Depth perception and balance are both required when crossing a river on a log, hiking over uneven terrain or even standing on cross country skis.

For anyone who has worked in the field of adventure programming with special populations, it is easy to assess the emotional rewards gained by both the student and instructor during high risk activities such as rock climbing, rafting and peak ascents. The tears of happiness and accomplishment often flow unabated. However, adventure programming has been the subject of numerous behavioral studies over the last decade.

BOEC Study

One of the most significant studies undertaken to evaluate risk recreation for special populations was conducted at the Breckenridge Outdoor Education Center in the summer of 1982. The study involved the Oncology Clinic of the Denver Children's Hospital. After several meetings between staff members of the BOEC and Children's Hospital, a program for the adolescent cancer patients was developed. The average adolescent cancer patient goes through several radical changes involving lowered self-concept, extreme change in physical appearance and increased conflict with interpersonal

relationships involving both family and peer groups. The program suggested that all of these behaviors could be improved through a very structured series of outdoor risk activities.

Funds for the program were generated through the efforts of the BOEC and several Colorado foundations. A strict set of objectives was drawn up by the staff of Children's Hospital, and the BOEC instructors were given the task of meeting these goals through special high-risk activities.

The course would be five days in length and included the following activities: ropes course, rock climbing, belaying, rappelling, sensory walks, several hikes, map reading, overnight solo, rafting and horseback riding. Each activity was carefully analyzed as for what it would do for the individual student. For example, it was hoped that belaying would instill a sense of personal responsibility and that rafting would be a stressful experience but increase each student's faith in one another.

The program was closely monitored by a researcher from the University of Colorado. The researcher attended all the planning sessions and was an active instructor throughout the first program. His methods of documentation involved pre and post-course psychological tests, a group journal during the course and instructor evaluations.

The students' activities on the course were rated by the participants on a scale of one to ten. Students were asked to judge the activities on not only how much fun they were but also on how much they felt they received from them. The two groups of



A camp at sundown.

activities that scored the highest were those that encouraged personal reflection and those that were stress-related. Stress-related activities scored very highly except for hiking with a backpack which received one of the lowest scores. The data suggested that highly evocative, confrontive activities such as rock climbing and rafting generate greater satisfaction than endurance activities.

Another type of evaluation that was given to the students was a sociogram. The participants were asked to score each member of the

group in relation to whom they would like to have as the leader of the group, to be lost with, to go to with personal problems, to be one's belayer and to be one's friend. The results of the sociogram were revealing. One could conclude from the data suggested that risk activities not only improved personal self-image but also relationships within peer groups.

The most revealing of all the tests that were given during this program was the Tennessee Self-Concept Test (TSCS). The TSCS measures psychological change in several differ-

ent categories related to self-concept including: self-esteem, self-satisfaction, physical self, family self and social self. The test results suggested that virtually every participant showed major improvements in all categories. The course reduced feelings of confusion, alienation and defensiveness. At the same time there was an increase in positive feelings about personal and social identities.

Study Results

The results of the evaluation, in addition to observations made by the staff of both Children's Hospital and

the BOEC staff, strongly indicate that risk recreation programs can produce significant change in individual participants with special needs.

Did the course effectively respond to and treat the needs of the participants? The following comments from the participants themselves summarize their perceptions of the course:

> "It helped me a great deal. I have self-confidence in myself and it has shown me how much courage I have."

"I was able to sort out some of my personal problems."

"I have more trust in myself."

"It has made me strong physically."

In addition to individuals with cancer, the BOEC has developed other unique outdoor challenge programs for various special needs groups. These groups have included teenage prostitutes, paraplegics, quadraplegics, alcoholics, epileptics, burn victims, developmentally disabled, adjudicated adolescents, emotionally disturbed youth, those with cerebral palsy and battered women. These populations have a strong need for improved self-image, increased self-confidence and better communication skills. Recreation programs that use high-risk activities such as rock climbing can create situations that allow these people the chance to succeed at something they never thought they could attempt, thereby radically improving their own selfimage.

Sit-Skiing

Barry had spent most of his personal and professional hours in the



A sit-skier prepares for a chair-lift ride to the top of the slope.

mountains. If he wasn't ski instructing he was climbing. His feet tested the slopes of many continents — from the Rockies to Mount Everest. For almost thirty years outdoor adventure was his way of life.

Then came the helicopter ride that ended with a crash. At that moment seventeen years ago Barry became a paraplegic. His life in the mountains abruptly ended.

This last winter, at the urging of another paraplegic friend, Barry came to Breckenridge. Within an hour of his arrival he was strapped into a sitski (a device designed specifically to allow those with spinal injuries to ski). His apprehensions turned to wonder as he rode the chair lift to the top of the slope. Barry was accompanied by a BOEC staff member. Together they descended the mountain with gentle, deliberate turns. Barry was skiing again! His smile revealed an inner glow that touched everyone he spoke to. For people with mobility impairments, the world slows down.

Every movement takes longer to accomplish. With sit-skiing and other techniques, a sense of speed, mobility and normality returns.

Conclusion

The Breckenridge Outdoor Education Center's program serves over ninety agencies throughout the United States and Canada. Its consultants and professional staff work with state, federal, public and private organizations throughout the country to make the outdoors accessible (safely) to the over twenty million Americans who fall within the category of "special populations."

Since traditional types of therapy and recreation have fallen short of the needs of many people the demand for risk recreation programming continues to increase. Risk recreation provides hope — not just for the participants but for those who can find inspiration in the outpouring of that which is the best of the human spirit.

Michael Mobley is Executive Director, Judy Deinema is Program Director, Kelly Rowell is River Coordinator and Gini Bradley is Winter Ski Coordinator of the Breckenridge Outdoor Education Center in Breckenridge, Colo.

Perceptions and Choices of Risk Taking

by H. Peter Wingle



Skiers in Monashee Mountains, British Columbia

Risk taking is part of recreation excitement. People seeking some exciting sports and activities want a degree of risk or the adrenalin will not flow to create the adventure they seek. Because of lawsuits, there is a growing belief that developed recreation facilities and recreation opportunities should be more and more risk free. Of course, much of this is true. However, this author feels opportunities for risk taking in recreation are both needed and important. What may be a mundane activity to one may be a thrill to another, depending upon a number of things. Risk taking in recreation is often a psychological matter rather than a

necessity, and people do have a choice.

History shows that some segments of society crave excitement and a degree of risk in order to fulfill psychological needs. The degree varies with the individual and some levels of risk are available on the National Forests. If it is not possible to get this in desirable natural environments, it may occur on the highway, a barroom, through use of drugs or some other undesirable means.

The National Forests contain about 191 million acres and provide a broad range of acceptable opportunities for adventure. The public obviously likes those forest lands and what is allowed there, as recreation use is equivalent to about 12 hours per person per year for every citizen of the nation. Adventure is different things to different people. Merely stepping over a narrow brook may be seen as a high adventure to some people, while experienced and possibly foolhardy folks may take almost any activity in stride. The point is that the National Forests do provide opportunities for high adventure along with many forms of recreation which are environmentally and socially acceptable and fit the role for these public lands.

One objective of the Forest Service is to manage through service with a

minimum of regulation. Policy provides that public recreation opportunities and facilities will be appropriate to the forest environment. This leaves a lot of latitude for the public, but does restrict some exciting activities which are inappropriate in these areas.

There are two distinct types of recreation occurring on the National Forests: those that are private, where the individual assumes responsibility for his or her own actions; and commercial permitted operations where the concessioner or guide may assume a degree of responsibility for the safety and welfare for the client.

Recreation has become a heavily marketed industry and much of the growth in the adventure of risk sports has resulted from this marketing. Manufacturers of recreation equipment promote excitement through magazines, movies and television. The media seem to demand more exciting articles and photographs in order to outdo their competitors. A recent ski movie showing a skier doing a backflip in front of an oncoming locomotive epitomizes this insatiable demand for excitement — at least looking at the exciting action — even if few people ever attempt such things. The facts are that an increasing number of people are becoming interested in adventure or risk activities.

In recent years there has been enormous growth in cross country skiing, board sailing, kayaking, rafting and other activities dependent upon the availability of new products, equipment and appropriate settings. This does not mean that the traditional activities don't provide as much or even more excitement to the novices and people that are recently

moving into forest-types of recreation. However, the current summer sports schedule of the Colorado Mountain Club lists over 1,000 trips involving hiking, climbing, bicycling, canoeing and other activities in the U.S. and abroad which are led by qualified individuals.

It is in the area of commercial or club use where much of the public becomes aware of and learns to participate in risk or adventure sports, and develops confidence in being active in the out-of-doors. The skill levels among individuals entering these sports vary considerably as does their perception of what is high adventure and risk. Concessioners, out-fitters and guides, clubs, organizations, personal development schools and other groups are helpful to the public through controlled teaching, leading and other means.

The Forest Service requires permittees to provide liability insurance and to indemnify the Government against liability. Permits are issued for a public purpose, and the purpose clause of permits indicates what service is authorized and/or required. Operating plans are a required provision of most permits and these deal with public safety. Consequently, permit administrators determine if the services required are actually being provided and that the degree of service meets those required by the permit. If it is not, use privileges can be removed and permits revoked.

Outfitted and Guided Activities

The broadest spectrum of risk or adventure sports occurs in this area. Examples range from skiing using

helicopters to lift skiers to remote and uncontrolled ski slopes, to ice climbing, mountaineering, pack trips, personal development outdoor schools, river rafting, kayaking schools, to basic hiking and birdwatching. The degree of adventure is entirely dependent upon the client's background, ability level and desire.

Forest Service outfitting and guide permits require operating plans. Permits can be revoked if a permittee does not provide accepted levels of service. However, determining this can be difficult. Few adventure sports have certification programs for guides. The determination as to competency and acceptability of service lies mainly with the administrator, and a decision to revoke a permit privilege is subject to administrative appeal procedures. It is impractical for the Forest Service to have experts in every sport or activity being carried out by commercial operators, particularly at each administrative unit. Operating plans must be updated annually, and should contain evidence of guide competency and operating procedures.

Rather than inspect the service that is given, a monitoring process is used to determine if systems are in place to insure service is provided as agreed upon. The actual type and degree of monitoring will vary from case to case depending upon the type of activity, record and competency of guides and operators, quality of operating plans, etc.

The public must realize that the government is not guaranteeing their safety when they participate in high risk recreation activities. They always have a responsibility for themselves.



Helicopter landing to pick up skiers on Conrad Glacier at Purcell Mountains, British Columbia.

However, in the case of activities on the National Forests, the Forest Service attempts to make users aware of the risks through interpretation and education efforts.

Developed Recreation

Millions of people find their adventure sports at developments such as ski areas. For most, skiing is an activ-

ity which takes them where they can enjoy the out-of-doors and beautiful scenery. In fact, a recent ski industry study showed that less than 20 percent of the participants are avid skiers addicted to the sport. Most go to ski areas to be in pleasant and natural surroundings, to be with friends and they find skiing enjoyable but are not seeking the risk thrills. In order to compete successfully for customers, ski areas are increasingly presenting better groomed slopes to make skiing easier and to provide better opportunities to enjoy the out-of-doors. However, skiing will continue to be an adventure sport which constitutes some degree of risk to the participant.

In Colorado during the 1984-85 ski season, a record number of accidental fatalities occurred at ski areas. The rate was about one per million skier visits. The reasons are not clear, but a profile showed that the victim was usually a young male who was skiing too fast for his ability. The majority of accidents involved skiers crashing into trees or other obstacles.

Also, there are an unfortunately large number of people that are seriously injured while skiing. Many of these sue the ski areas and often receive substantial awards for injuries even where negligence is not readily apparent. Juries are making substantial awards to individuals in cases where many persons involved in the sport feel the user has responsibility for his or her own actions. The result is higher use costs because of higher insurance rates.

If this were the only effect, it might be acceptable. However, there is also a question of whether or not adventure sports should be encouraged or the sports so toned back and re-

Peter Wingle, USFS

stricted that adventure is not easily achieved. Certainly constraints must vary between controlled environments such as ski areas and uncontrolled environments.

Education

Education is needed to make individuals more aware of the recreational opportunities available on various lands. Some activities are more suitable on private lands than on National Forest or other public lands. Education is one means of achieving safer recreation. However, risk, whether it be stepping over that first running brook, chasing that first butterfly or making a decision to shoot a Class IV white water rapid in a kayak, may help a person be a better citizen and a satisfied individual because of that learned ability to develop confidence and overcome fear.

Only in recent years have the physically handicapped, in large numbers, ventured out-of-doors to face adventure head on. No doubt there is great fear in the beginning but this has brought about remarkable changes in the lives of thousands of people in Colorado alone. Winter Park Ski area has an extensive skiing program for people with a variety of handicaps. Through skiing or other snow-related sports, along with professional staff that utilizes current teaching methods and a variety of mechanical devices, the nation's largest handicapped sports program has been developed. As a result of this program, handicapped individuals are finding that they can succeed in more parts of their lives than just the sport.

Conclusion

A large element of our society has a

need for excitement which comes from a degree of personal risk. Individuals can grow through experiencing and coping with risk, whether it be a first bicycle ride by an unskilled youngster or a highly capable adult attempting to excel at something beyond his or her level of expertise. Risk is what makes many activities a challenge or perhaps fun. It is a psychological part of one's life, and the benefits are often difficult to measure.

The National Forests provide the opportunity for a number of adventure sports including activities having some elements and degrees of risk. There are opportunities to engage in adventure activities as a private person or through commercial operations authorized by permit, from the Forest Service. However, individuals have a responsibility for their own safety and a responsibility to learn how to manage that risk. The degree they choose is a personal choice and what they do on their own in uncontrolled environments is up to them. Once the public uses developed facilities or utilizes commercial, organizational, or other private sector operations, a degree of liability may shift to others.

If risk recreation is indeed valuable for the public, it would seem that society will have to keep liability for injury in a proper perspective or too many of the opportunities afforded to the public will be lost. There are no easy answers. Education of the user and of the society in general may be an important solution but certainly not the ultimate answer. Finding that final answer will no doubt be a long time coming.

H. Peter Wingle is Director, Recreation and Lands, USDA Forest Service, Rocky Mountain Region, Lakewood, Colo. He is an avid helicopter skier, kayaker and participant in outdoor sports. Wingle has been a Forest Service District Ranger, Forest Supervisor and a staff officer in a variety of recreation management positions throughout the country.

Risk Recreation in Higher Education

by Charles L. Mand

A significant change has occurred among college age youth in the past two decades with regard to leisure activities. A large number of these and young people find pleasure and satisfaction through participation in back packing, rock climbing, rappelling, SCUBA diving, high ropes, whitewater kayaking and many other similar pursuits. At times, natural areas such as fast moving rivers, tropical 113 reefs and rock faces seem overbur-" dened by student efforts to explore that these environments and also to test their personal limits in the process. Some wonder, "why do they do it?" The activities seem risky, even fearful, require a very substantial physical effort and produce stress and anxiety." Yet the numbers of those interested. seem to be increasing all the time,

1. Pm &

In one sense the turn to adventure activities is a "quiet revolution." Park rangers know of it, parents, college instructors in physical education or recreation departments react to it, Outward Bound leaders help stimulate the movement and of course the young people learn of the experiences from each other. However, the movement doesn't lend itself to television coverage nor has it been intimately associated with health or quality of life as has jogging or mass marathons with 20,000 entrants. Participation is personal, the challenge is nature, and goals are self-directed rather than with established or arbitrary standards and rules.

Interest in adventure activities developed initially among college age youth, was practiced without organizational support, is spreading to younger as well as older age groups and after this period of spontaneity is now being institutionalized. Colleges

-ponsor activities. At times the col-

and universities offer courses, train leaders and promote adventure expeditions. Of course these institutions establish rules, procedures and in some cases evaluate student efforts.

This pattern of development is (1) analogous to that which occurred at the beginning of this century in organized school athletics. In that era TE college students formed teams, developed leagues and promoted their athletic competition. At that point in time administrators and faculty reacted by institutionalizing sports and athletics. Much the same pattern is unfolding with regard to adventure activities. In time it could represent as significant a movement as has organized athletics. Hopefully, institutionalization of adventure activities will lead to more propitious results than has occurred after 75 years of athletic control by schools and colleges. · ?

Three questions bear attention regarding the relationship of adventure activities and higher education:

- 1. How does adventure education relate to the purposes of higher education?
- 2. What types of activities or programs are being practiced?
- 3. What issues arise as a result of higher education's involvement with adventure education?

How does adventure education relate to the purposes of higher education?

What is the significance of a rock climbing experience, or sleeping on top of Mt. Washington, New Hampshire, in January, or traveling through the Brooks Range in Alaska as a college-sponsored activity? For some it is irrelevant to the central purposes of a higher education institution, for others antithetical but to many if not most, it is simply a belief in education as a total developmental — not merely an academic or intellectual — experience. It may best be described as an education for character and leadership.

Many activities at college seem directed to the total development of an individual. Residence halls, health centers, lecture series, religious offices, counseling services, sports facilities, museums, art displays and other similar enterprises of a co-curricula nature enhance the intellectual possibilities of the student but also are arranged to influence the lifestyle and behavior of the individual. Colleges are interested in good scholars but also good persons. Even the admissions literature sent to prospective students focuses on the individual as a person as well as a student.

It is not by accident that the initial programs in adventure education are associated with the English private school movement and gravitated via Outward Bound to the United States. The original board of directors for Outward Bound in the United States had a heavy flavor of private preparatory school membership. It is in the private school movement in this country that consideration for character and leadership as well as rigorous intellectual achievement remain entwined regarding educational purpose.

Adventure education is merely an extension of a long tradition of ancillary activities such as athletics which provide a sense of physical challenge

and perceived risk to influence the total development of an individual.

A second important relationship of adventure education to the purposes of higher education lies in the experiential nature of the activities. For years educators have asked why we insist that education only occurs when the class is seated and door is closed. Then students look at specimens in bottles that are pickled or preserved, pictures in books, or video tapes and films depicting social experiences or selected forms of the plant and animal kingdom. At one point in history we were rich in experience and short on information. We have reversed this matter; today education is long on information but very short on experience. We substitute abstraction for sensory learning.

This phenomenon is so bad for some inner city children who read of cows and milk and cheese and cream that they don't associate cows with the products at all. Cows are pictures in books and milk comes from the super market, some place in the back of the store!

The loss of experience has meant for all youth a loss of association with natural phenomena – rain, heat, mud, thirst or walking long distances. All in all, many individuals have lost the realization that they are part of the natural order, no more – no less, existing in a state of mutual dependency.

Types of activities and programs being practiced

Colleges and universities have a long history of involvement with organized outdoor programs for educational purposes. In some cases individual faculty members, or specific departments of study promote and

sponsor activities. At times the colleges were influenced to initiate programs by organizations such as Outward Bound. The particular characteristic of a college determines whether experiences are included in the mainstream of course offerings or considered a co-curricular or extra curricular activity. For some institutions adventure programs serve the immediate student body, for others the task is expanded to include serving the community, training outdoor leaders and examining through research the significance of the activities.

Different institutions demonstrate a commitment in a variety of patterns. A few examples:

- Antioch College in Ohio has sponsored extensive interdisciplinary expeditions for students to wilderness areas such as the Brooks Range in Alaska.
- Mankato State College in Minnesota has developed an outdoor wilderness leadership masters degree program with a focus on wilderness travel.
- Dartmouth College in New Hampshire has a world renowned Outing Club which features trails and hostels in the White Mountains for alumni and students among many other activities.
- The Ohio State University has a series of programs and commitments which are worth describing to demonstate the possible impact of this area. The focus for the programs is in the Education College, School of Health, Physical Education and Recreation.

A. Program of Outdoor Pursuits – General students elect to participate for physical education credit among activities such as caving, rock climbing, SCUBA diving, bicycling, winter survival camping, white-water rafting. Students participate on weekends and during interim periods and travel long distances, often to foreign countries. In addition, certain courses are interdisciplinary in nature. An example is Wilderness and The American Experience, an examination of 19th century naturalistic authors in conjunction with a wilderness experience of several weeks. The course is conducted by the departments of Comparative Studies in the Humanities and Physical Education.

B. Adventure Center – The University developed two high ropes courses, a group initiative course and a challenge course for the handicapped on 160 acres, twenty minutes from campus. The center serves approximately 3,000 persons per year including school groups, patients in residential treatment centers, business leaders, pre-service teachers, prospective outdoor leaders, school teachers and general college students. The focus of activity is on improved group relationships and self-awareness via challenge activities.

The program at the Adventure Center provides general instruction, clinical instruction for future leaders, service to the community and state, as well as applied research opportunities with the populations served.

Many other colleges sponsor programs in this area. In fact, in another 5 years it may be difficult to find institutions that haven't responded to the







Mark Blackwood, Mo. Dept of Nat Res

Adventure education leaders must truly enjoy the activities - they must be "players."

changing activity interest among youth.

Issues resulting from higher education's involvement with risk recreation.

A. Johnny Come Lately – Colleges and universities are recent arrivals to adventure education. Much of the difficult work of promoting opportunities for youth in this area such as training safe leadership and bringing attention to these interests was accomplished by private individuals or non-profit agencies with minimal resources. Who shall be responsible for safe practices, leadership training or ethical protocols in the future?

While colleges assumed responsibility for relatively low risk outdoor activities in summer camps or engaged in conservation education, the adventure pioneers broke the barriers of relatively high risk activities for youth. They developed and convinced insurance companies of the safety practices and thus opened the doors for others, such as colleges, to conduct adventure programs. Yet given the resource base of most col-

leges it is possible to "capture the market" and drive out those who truly initiated this youth-serving activity.

This seems unfair but also foolish since colleges serve a limited proportion of youth and these activities can be valuable for all. Why repeat the mistake of athletics that basically precludes youth from good facilities and training if not a school or college student?

B. Exaggerated Claims, False Assumptions – In an educational environment unreasonable claims or unsubstantiated results are not tolerated. Claims of instant cures, or radical changes in behavior as a result of a specific experience are viewed with great skepticism unless reasonable evidence is produced to substantiate the claims. Furthermore, the evidence must be gathered with appropriate and approved methodology. There just aren't any shortcuts.

Also, professionals only act within their level of competence and training. Simply stated, a teacher isn't a therapist. Unless prepared specifically for the task a physical education teacher is not a rock climbing instructor! There is a tendency to exaggerate claims for adventure activities and also to muddle into areas of personality and behavior for which training is inadequate.

Adventure education requires more clearly defined purposes and professional standards. The era of claiming that a one to four week experience can redress emotional or behavior problems that took 15 years to develop demeans the entire movement.

C. Environmental Impact – It is only a small exaggeration to state that rivers and rock faces seem covered with young people bent upon exploration. There are large numbers of people seeking wilderness for adventure pursuits. How many are too many relative to the environment? At one school such as Ohio State perhaps as many as 500 students a year are introduced to the outdoors for adventure purposes. In addition, high school teachers are trained to do the same for their students. The eventual impact of this and other programs is considerable.

Thus far the emphasis is on starting the program, involving more people with only secondary interest in minimal impact participation.

D. Rich Man – Poor Man – Who can afford adventure education? It is more expensive than typical or at least other possible physical activities. Yet it seems to follow the pattern of many enterprises in society; the relatively wealthy have the means to absorb the cost and generally it is possible to find help for the financially poor. Middle class youth have to struggle to find the money to meet the fees generally attached to these exotic activities. The movement will founder without a solution to this problem.

E. Leader-Researcher – To survive in adventure education as a leader one must be credible with regard to skills, personal experience, teaching expertise and organizational competency. To stay in the business for any time one must "enjoy the game" and truly like to hike or climb or any one of many similar skills. One must be a "player."

This area is so attractive that it is possible to find many persons with these qualities. In fact people do enjoy the trips, the activity, the people so much that many do not take time to secure the credentials required for teaching in college. Of even more significance, however, the credible leader doesn't seem to take time to publish regarding the experiences, generalize to other populations and in brief, do the things necessary in a college or university setting for promotion or tenure.

Thus the requirements for a professional position related to adventure education includes credible adven-

ture leadership skills, a training level for the university, usually a doctorate degree and publication record. This is not an easy combination to find.

Regardless of these issues and they are burdensome, the pressure for adventure programs from students and the excitement of these activities as well as their significance makes this an exciting period in the use of the outdoors. There is room for many different agencies including colleges and universities to contribute to the further development of adventure education. Hopefully a spirit of cooperation will prevail with the intention of serving youth more faithfully.

Charles L. Mand is Director of The Ohio State University's School of Health, Physical Education and Recreation.

Adventure Education

American Camping Association Bradford Woods Martinsville, Ind. 46151-7902 317-342-8456

American Outdoor Safety League 13256 Northrup Way, Suite 8 Bellevue, Wash. 98005

Association of Experiential Education
Box 249-CU
Boulder, Colo. 80309

303-492-1547

Breckenridge Outdoor Education Center P.O. Box 697 Breckenridge, Colo, 80424

Breckenridge, Colo. 80424 303-453-6422

Environmental Awareness Publications

P.O. Box 990 Greenfield, Mo. 01302

National Outdoor Leadership School

P.O. Box AA Lander, Wyo. 82520 307-332-6973

National Safety Network P.O. Box 186 Bellefontaine, Ohio 43311 513-592-4686

Outdoor Research and Consulting 271 West Pacemont Columbus, Ohio 43202 614-267-5300

Project Adventure P.O. Box 157 Hamilton, Mass. 01936

Roland and Associates, Inc. P.O. Box 332

Hancock, N.H. 03449

Wilderness Education Association Route 1, Box 3400 Driggs, Idaho 83442 208-354-8384

Effects of Outdoor Leadership Certification on Safety, Impacts and Program Standardization

Cockrell, D. (1985). Opinions of Virginia's outdoor educators concerning standards, certification and training. *The Virginia Journal of Health, Physical Education and Recreation*, 7 (2), 17-18, 21.

Cole, D. N. (1982). Wilderness campsite impacts: Effect of amount of use. U.S.D.A. Forest Service Intermountain Forest and Range Experiment Station Research Paper INT-284. Ogden, UT.

Cousineau, C. (1977). A delphi consensus on a set of principles for the development of a certification system for educators in outdoor adventure programs. Unpublished doctoral dissertation, University of Northern Colorado, Greeley, CO.

Ittner, R., Potter, D. R., Agee, J. K. and Anschell, S. (1979). Conference Proceedings: Recreational Impacts on Wild Lands. U.S.D.A. Forest Service Pacific Northwest Forest Experiment Station Publication R-6-001-1979. Seattle, WA.

Ewert, A. (1985). Certification: Analyzing the possibilities. *Camping Magazine*, *57* (6), 16-19.

Ewert, A. and Johnson, W. (1983). Outdoor adventure leadership: A study of current issues facing the profession. *Proceedings: Intermountain Leisure Symposium*. Provo, UT: Brigham Young University. pp. 53-56.

LaPage, W. F. (1984). Financing the wilderness with user taxes or "when will the dinosaur die?" Paper presented at the Conference on Fees for Outdoor Recreation on Lands Open to the Public, Durham, NH.

Petzoldt, P. (1974). *The Wilderness Handbook*. New York: Norton.

Rogers, R. J. (1979). *Leading to Share: Sharing to Lead.* Sudbury, Ontario: Council of Outdoor Educators of Ontario.

Shulte, S. (1975). Examination of certification of whitewater paddlers as a way to increase safety in whitewater paddling. Unpublished Masters Thesis, University of Missouri, Columbia, MO.

Senosk, E. M. (1977). An examination of outdoor pursuit leadership certification and licensing within the U.S. in 1976. Unpublished Masters Thesis, University of Oregon, Eugene, OR.

Shelby, B., Danley, M. S., Gibbs, K. C., and Peterson, M. E. (1982). Preferences of backpackers and river runners for allocation techniques. *Journal of Forestry* 80, 416-419.

Sheltmire, J. (1979). Is there a need to license campers and canoeists? *Canoe*, May, 5-6.

Stankey, G. H. and Baden, J. (1977). Rationing wilderness use: Methods, problems, and guidelines. Ogden, UT: USDA Forest Service Research Paper INT-192, Intermountain Forest and Range Experiment Station.

Wagar, J. V. K. (1940). Certified outdoorsmen. *American Forests*, 46, 490-492, 524-525.

High Adventure Recreation in Organized Camping

Henderson, K. & D. Bialeschki (January, 1984) Organized Camping and The Future: Research on Major Trends. *Camping Magazine*, Vol. 56, No. 3, p. 19-21.

Yerkes, R. (March, 1984) Staffing Adventure Programs. *Camping Magazine*. Vol. 56, No. 5, p. 16.

On The Razor's Edge: The Management of Risk

Cohen, John and Mark Hansel, "Risk and Gambling," in William Haddon, et al. *Accident Research* (New York: Harper and Row Publishers, 1964), p. 107.

Ewert, Alan "The Risk Management Plan: Promises and Pitfalls," *The Journal Of Experiential Education*, Vol. 7, No. 2 Fall, 1984, pp. 27-32.

Meyer, Dan "The Management of Risk," *The Journal of Experientual Education*, Vol. 2, No. 2 Fall, 1979, pp. 9-14.

Mobley, Michael *The Role of Risk* and *Risk Management in Experiential Education*, Eric/Cress document # ED 241 213, 1981.

Mobley, Michael "Anatomy of an Accident," *The Journal of Experiential Education*, Vol. 7, No. 2 Fall, 1984, pp. 11-14.

The Association for Experiential Education; CU Box 249; Boulder, CO 80309 (303) 492-1547.

Accepted Peer Practices in Adventure Programming, Risk Management Committee, Association for Experiential Education, Boulder, CO, August 1984, -. 190. \$25.

Regulating Risks in the Nation's Parks

Leitch, W. 1978. "Backpacking in 2078," *Sierra Club Bulletin*, 63(1): 25, 57.

Lucas, R. 1982. "Recreation Regulations - When are they Needed?" *Journal of Forestry*, 80(3): 148-51.

McAvoy, L. and D. Dustin. 1985. "Indirect Versus Direct Regulation of Recreation Behavior," *Journal of Park and Recreation Administration*, 1(4): 12-17.

McAvoy, L. and D. Dustin. 1981 "The Right to Risk in Wilderness," *Journal of Forestry*, 79(3): 150-152.

Miles, J. 1978. "The Value of High Adventure Activities," *Journal of Physical Education and Recreation*, 49(4): 27-28.

Rankin, J. 1984. "Landfeatures, Locality, and Liability in Park Injury Cases," *Trends*, Vol. 21, No. 3.

Sax, J. 1980. *Mountains Without Handrails*. Ann Arbor, MI: University of Michigan Press.

Schreyer, R., R. White and S. McCool. 1978. "Common Attributes Uncommonly Exercised," *Journal of Physical Education and Recreation*, 49 (4): 36-38.

Risk Recreation: Trends and Issues

Brady, M. and L. Skjemstad. 1974. *Ski Cross-Country*. New York: Dial Press. p. 206.

Cipriano, R. 1985. "Trends in outdoor recreation for the handicapped." Paper presented at the Outdoor Recreation Trends Symposium II. Myrtle Beach, South Carolina. February 26.

Cordell, H. K. and J. Hendee. 1982. Renewable resources recreation in the United States: supply, demand, and critical policy issues.

Washington, D.C.: American Forestry Association.

Cordell, H. K. and L. Hartmann. 1983. "Aggregate trends in outdoor recreation in the two decades since ORRRC." Paper presented at the Southeastern Recreation Researcher's Conference. February 17-18. Asheville, N.C. pp. 5-6.

Dunn, D. and J. Gulbis. 1976. The risk revolution. *Parks and Recreation*. August. p. 12.

Ewert, A. 1985. "Emerging trends in outdoor adventure recreation." Paper presented at the Outdoor Recreation Trends Symposium II. Myrtle Beach, South Carolina. February 26.

Helms, M. 1984. Factors affecting evaluations of risk and hazards in mountaineering. *Journal of Experiential Education*. 7(3): 22-24.

McBride, D. 1984. The behaviors of adolescent boys in a residential treatment center during high ropes course experience. Ph.D. dissertation. Columbus, Ohio. The Ohio State University.

Rillo, T. 1984. Megatrends in outdoor education: past, present, and future. *Journal of Outdoor Education*. p. 18.

Shackleton, E. 1920. South: The story of Shackleton's last expedition 1914-1917. New York: MacMillan Company. xii.

Siehl, G. 1985. "Federal trends in outdoor recreation policy." Paper presented at the Outdoor Recreation Trends Symposium II. Myrtle Beach, South Carolina. February 27.

Van Horne, M. J., L. Szwak, and S. Randall. 1985. "Outdoor recreation activity trends — insights from the 1982-83 nationwide recreation survey." Paper presented at the Outdoor Recreation Trends Symposium II. Myrtle Beach, South Carolina. February 27.

Zuckerman, M. 1979. Sensation seeking: beyond the optimal level of arousal. Hillsdale, NJ: John Wiley and Sons.

Article Contributions

Dear Subscribers and Readers:

We often receive unsolicited articles for *Trends* that are interesting and informative, but do not pertain to the "themes" that we have scheduled for publication. Sometimes we keep these articles on file or we return them to the authors to be published elsewhere.

In order to accommodate those persons who took the time to write the articles and, more importantly, to share this information with all of you, we decided to devote our Spring 1986 (Volume 23, No. 2) *Trends* issue to a variety of topics not related to any particular theme.

If you have an article that you feel would be of interest and benefit to park and recreation managers and supervisors, please send it to me by November 1, 1985. Articles should be 7-12 typed, double-spaced pages in length and should be accompanied by photographs or slides which will be returned to you after printing. (Please include brief captions and credits with all illustrations.)

Although we cannot guarantee that all articles will be published, we will acknowledge all submissions and return those we cannot use.

Sincerely,

K.a. Pleasant

Managing Editor Park Practice Program National Park Service PO Box 37127

Washington, DC 20013-7127 Telephone: (202) 343-7067

