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**WILDERNESS EXPERIENCE PROGRAMS FOR PERSONAL GROWTH, THERAPY,
EDUCATION AND LEADERSHIP DEVELOPMENT: THEIR EXTENT, SOCIAL-ECONOMIC
AND ECOLOGICAL IMPACTS AND NATURAL RESOURCE POLICY IMPLICATIONS--A
FIVE-YEAR PROGRAM OF RESEARCH BY THE UNIVERSITY OF IDAHO WILDERNESS
RESEARCH CENTER 1994-2000**

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US Department of Labor, Aldo Leopold Wilderness Research Institute, and several cooperating
wilderness programs.**

**FINAL REPORT
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PERSONNEL

Keith Russell - MS 1996; Ph.D. 1999; TA – Use of Wilderness for Personal Growth Class (RRT 491) 1995, 1996, Instructor 1997, Co-instructor 1998; lead Co-instructor 1999; Instructor and Adjunct Assistant Professor 2000; WD Leader, Timberlake JCC 1994; Atlanta JCC 1995; *IN IDAHO*, Co-leader 1998; Appointed Leader, Outdoor Behavioral Healthcare Research Cooperative July 1, 1999 to present

Graduate Students:

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 Dan Gager - MS 1996; TA, RRT491 1996; WD Leader, Curlew JCC 1994; Trapper Creek JCC 1995
 Pam Farmer – Ph.D. anticipated 2000; *IN IDAHO* Wilderness Trip Leader 1997, 1998
 Tracie Welton – Ph.D. anticipated 2001; RA 1995-1997; TA – Wilderness Vision Quest Class 1996
 Dave White – MS 1998; *IN IDAHO* Assistant Leader 1997; WD Assistant, Trapper Creek JCC 1997; TA, Wilderness Vision Quest Class 1997; TA RRT491 1997, 1998
 Greg Friese – MS 1996; Research Assistant 1994-1996
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 Kristin Anderson – WD Assistant Leader, Timberlake JCC 1995; Research Assistant 1994-1995
 Dave Smaldone – Wilderness Therapy data analysis 1998-1999; TA 1999 for RRT 491
 Josh Carpenter - (graduate student in counseling, University of Idaho) (see literature cited)

Cooperating Faculty: (In alphabetical order)

Dr. Steven Cooke – Assoc. Professor, Agricultural Economics; Committee Member, Russell MS (see literature cited)
 Dr. Chad Dawson – Professor, New York State University at Syracuse; Leader of supplementary data analysis and publication (see literature cited)
 Dr. Sally Gordon – Professor, Psychology; Committee Member, Pitstick Ph.D.
 Dr. Sam Ham – Professor of RRT; Committee Member, Welton Ph.D.
 Dr. Mike Kinziger, Assistant Professor of Recreation; Committee Member, Russell MS and Ph.D.; Gager MS; White MS; Welton Ph.D. (see literature cited)
 Dr. Ed Krumpe – Professor, Resource Recreation and Tourism; Committee Member, Gager, Pitstick, Russell, MS and Ph.D., White MS (see literature cited)
 Dr. Diane Phillips-Miller – Assistant Professor of Counseling – Committee Member, Russell Ph.D., Farmer Ph.D. (see literature cited)
 Marilyn Riley – Affil. Asst. Prof. HPER&D, Co-instructor. Wilderness V.Q. Class 1997; Co-investigator (see literature cited)
 Dr. Nick Sanyal - Assistant Professor RRT; Committee Member, Friese MS
 Dr. Jim Tangen-Foster - Affil. Assistant Professor of Resource Recreation and Tourism, University of Idaho (see literature cited)
 Dr. Tom Trotter, Assoc. Professor Counseling – Committee Member, Friese MS

WILDERNESS EXPERIENCE PROGRAMS FOR PERSONAL GROWTH, THERAPY, EDUCATION AND LEADERSHIP DEVELOPMENT: THEIR EXTENT, SOCIAL-ECONOMIC AND ECOLOGICAL IMPACTS AND NATURAL RESOURCE POLICY IMPLICATIONS--A FIVE-YEAR PROGRAM OF RESEARCH BY THE UNIVERSITY OF IDAHO WILDERNESS RESEARCH CENTER 1994-2000

Final Report January 2000

ABSTRACT:

The University of Idaho Wilderness Research Center (UI-WRC), with supplemental funding from several institutions, and participation of several faculty and graduate students (see acknowledgements), has completed a five-year program of research on *The Wilderness Experience Programs for Personal Growth, Therapy, Education and Leadership Development: Their extent, social-economic and ecological impacts and natural resource policy implications.*

This is a final progress report on research in this 5-year program, which so far has yielded or contributed to more than 40 publications of various types, two videos and an ABC prime time television, one-hour documentary (Miracle at Trapper Creek); two doctoral degrees and five masters degrees, with two additional doctorates anticipated. One three credit course has been established in this effort (RRT 491-Use of Wilderness for Personal Growth—30 students in spring 2000), and two special topics courses have been offered—Wilderness Vision Questing, 1996-1997.

Preceding the research program, helping set the stage and establishing needs, were efforts by the WRC Director as chair of a “National Wilderness Research Needs Committee” for the Society of American Foresters (Hendee et al 1993), and contributions on wilderness research needs to special “wilderness theme issues” of the Journal of Forestry (Hendee and Ewert 1992) and Trends in Parks and Recreation Journal (Hendee 1995). These efforts documented the need for research based information on perceived growth of wilderness use for personal growth, therapeutic, and educational uses by organized, fee charging programs, and for more university based wilderness research.

Following a formal plan for the research (Hendee 1995), the UI-WRC first searched and annotated the pertinent literature; created and operated three model wilderness experience programs to generate research data and program leadership experience; surveyed the Wilderness Experience Program industry to determine its extent, -characteristics and dynamics; surveyed manager's attitudes and policies toward WEPs; established a new student orientation program with a wilderness experience (*IN IDAHO*); studied the links between wilderness characteristics and WEP benefits; and carried out a benchmark study of wilderness therapy theory, process and outcomes.

Initially funded by a \$125,000, five-year commitment from the McIntyre Stennis program of research at US forestry schools, the research program drew an additional \$276,000 from: US Department of Labor—Job Corps, \$30,000; Forest Service National Research Office, \$100,000; Four national forests collectively for Wilderness Discovery programs, \$80,000; Aldo Leopold Wilderness Research Institute, \$20,000; Outdoor Behavioral Healthcare Industry Council, \$46,000.

LITERATURE, SEARCH AND ANNOTATION

The UI-WRC first searched, identified, annotated and evaluated 187 pieces of research based literature on the use of wilderness for personal growth (Friese, Pittman, and Hendee, 1996). This annotated bibliography coded the literature by **type of publication, source of data, principal research method utilized**, and provided **detailed abstracts**. The meta-analysis concluded in part that most of the studies identified suffered from methodological weaknesses and contained few long-term studies, but overall the studies consistently reported participant benefits from wilderness experiences such as increased self esteem and locus of control, with no negative benefit findings reported. As the research program matured into a focus on wilderness therapy, additional literature sources have been discovered and the annotated bibliography has been expanded and updated. Up to 50 requests for electronic versions of the annotated bibliography have been filled, and some for hard copies.

THREE UI-WRC MODEL WILDERNESS PROGRAMS GENERATING RESEARCH DATA AND
LEADERSHIP EXPERIENCE

Three model wilderness experience programs were developed by the UI-WRC i.e. WILDERNESS DISCOVERY, *IN IDAHO* and a WILDERNESS VISION QUEST EXPERIENCE CLASS.

WILDERNESS DISCOVERY

Wilderness Discovery (WD), a seven-day wilderness-backpacking program specifically designed for use by the Federal Job Corps was designed and tested during 1993-1996 (Hendee and Russell 1996; Russell and Hendee 1997). During a one-year feasibility study (Pitstick, Hendee and Lanthier 1994; Pitstick 1996), followed by a two-year pilot program and study, 46 WD trips were operated by the UI-WRC at four Job Corps Centers and nearby national forests. These Centers included the Curlew Job Corps Center in the Colville National Forest in northern Washington, the Trapper Creek Job Corps Center in the Bitterroot National Forest in Montana, the Timberlake Job Corps Center in the Mt. Hood National Forest in Oregon and the Atlanta Job Corps Center for minority women on the Cherokee and Nantahala National Forests in Georgia and North Carolina (Russell et al 1997, Russell 1997). An 11-minute video describing WD for training and recruiting collaboration was made by the UI (Hendee and Pitstick video 1993) and Wilderness Discovery was also featured in a one-hour television documentary on ABC television January 23, 1997 (Planet Grande Studio video 1997).

The Wilderness Discovery program provided important hands-on experience for the WRC director and its associated faculty and graduate students, and documented many social and economic benefits for participants. Of primary concern to Job Corps officials, the early termination rate among WD participants was reduced up to one-third compared to control groups. Other analyses of data demonstrated that the net present worth of society's investment in Job Corps could be enhanced by WD over and above its costs, based on the reduced Job Corps termination rate of WD participants, and their improved social development skills and adjustment (Russell, 1996; Russell, Hendee and Cooke 1998).

Wilderness Discovery continues to operate at Trapper Creek Job Corps in Darby, Montana where former grad student Dan Gager is now a permanent Forest Service employee, leads WD and trains personnel from other Forest Service Job Corp Centers interested in implementing a Wilderness Discovery Program. Wilderness Discovery as an adjunct to the overall Federal Job Corps program provides socially disadvantaged youth an opportunity to experience wilderness as a potential life long renewal opportunity, an opportunity most of them would otherwise miss (Russell 1997).

IN IDAHO

IN IDAHO, a seven-day wilderness backpacking program for incoming freshman students as part of their university orientation, was designed by Pam Farmer (1997) in UI-WRC, and operated in 1997 and 1998 in a test to determine its impact on academic retention, degree progress and social adjustment of participating freshman. There have been 63 new student orientation programs at US colleges and universities documented in the literature, but none with rigorous evaluation of effects. With graduation rates at the University of Idaho of about 25% for traditional freshmen, and an average of 5.2 years spent earning a bachelor degree for those who do graduate, enhanced retention and progress toward degrees would conserve significant resources—since student fees account for only about 15% of state costs for each Idaho student, and 30% for out of state students. This study is the focus of Pam Farmer's doctoral dissertation (nearly completed) and provided data for Dave White's Masters thesis (White 1998) and presentation to the "Wilderness Science in a time of Change Conference" (White and Hendee 1999). The study will provide a valuable database for follow-up analysis of longer-term effects.

WILDERNESS VISION QUEST CLASS AND STUDY

A WILDERNESS VISION QUEST class (RRT404) represents the third wilderness experience program operated by UI-WRC and yielding research data. The WRC became involved with vision questing through the following sequence of events.

In 1995, after two years experience with Wilderness Discovery in the Job Corps, and noting that other wilderness programs seeking important behavioral change all provide for deep reflective experiences (solo's, sometimes with fasting), WRC Director Hendee enrolled in an advanced wilderness leader course in 1995, emphasizing reflective use and taught by the foremost scholars of wilderness vision questing, Steven Foster and Meredith Little. Impressed with their approaches and results, Foster and Little were invited to present the next "Wilderness Resource Distinguished Lecture at UI (Foster and Little 1996) and to teach a weekend exercise in an RRT vision quest special topics class for which 45 students signed up. Subsequently, Hendee took additional training in 1996 and spent his sabbatical in 1997 conducting a study of the motivations and effects of wilderness vision questing, collecting data from 10 years of private clients going on VQs with Wilderness Transition Inc., a California non-profit organization led by Marilyn Riley (Anderson and Hendee 1996). This study documented motivations for vision questing as being primarily the desire for a spiritual journey and personal renewal and transition, with personal benefits related to self discovery, empowerment and spiritual growth (Riley and Hendee 1997; 1999; Hendee and Riley 1999). Hendee and Riley (by then married) taught a wilderness vision quest class (RRT404) to 14 students, fall semester 1997, which yielded research data for part of Dave White's masters thesis (White 1998; White and Hendee 1999). Having been taught twice as a special topic class, the course was proposed and approved by CFWR faculty as a permanent course, RRT 481, "Reflective Use of Wilderness," but was withdrawn voluntarily by Hendee and Riley so as not to offend Native American interests who expressed concern. However, some tools utilized in vision questing and the course were readily transferred as skills to be taught in the Use of Wilderness for Personal Growth class, RRT491, e.g. practice of council, mirroring stories from outdoor experiences, telling one's story, journaling, etc.

CHARACTERISTICS OF THE WILDERNESS EXPERIENCE PROGRAM (WEP) INDUSTRY

To determine the extent and characteristics of the Wilderness Experience (WEP) industry, we used a snowball sampling approach to identify, and a questionnaire inquiry to contact, 699 wilderness

experience programs operating in the United States (Friese, 1996), with 484 WEPs (69.2%) responding by sending their promotional materials (321) and/or completing the survey (131 completed the survey only). Using these data a directory of programs (Friese 1996a) was printed and a typology of programs was developed to classify WEPs along a spectrum with “Wilderness as teacher” at one extreme and “Wilderness as classroom” at the other. WEPs in the typology are compared with respects to: role of trip leadership, from passive to active; relative dependence on wilderness characteristics, from greater to lower; goals determination, from individual determines to program/group determines; activity emphasis, from reflective activities to challenge adventure or teaching activities; and skills utilized, from soft skill emphasis to hard skill emphasis. This typology is proving a useful tool for characterizing the WEP industry and for teaching.

Additional analysis evaluated characteristics and dynamics of the WEP industry (Friese, Hendee and Kinziger 1998) reported in the *Journal of Experiential Education* and in an invited book chapter assessing the “Status and Prospects for the Use of Wilderness for Personal Growth” (Friese, Kinziger, and Hendee 1999) in the book *Outdoor Recreation and Wilderness in American Life*.

Our Survey of WEPs was the most comprehensive yet conducted, and it led to several follow-up cooperative studies. Using the sample located by Friese, an additional, follow ups survey was led by Professor Chad Dawson of State University of New York (SUNY) at Syracuse with assistance by Greg Friese, UI-RRT affiliate faculty Jim Tangen-Foster and UI counseling doctoral student, Josh Carpenter. Their additional analyses resulted in three more publications focusing on the perceived dependence on and use of wilderness by responding WEPs (Dawson et al 1998); defining characteristics of WEPs (Dawson et al 1998); and risk management practices of WEPs (Tangen-Foster and Dawson 1999). Josh Carpenter, doctoral student in counseling, also utilized the Friese, WEP data base for his dissertation study of Wilderness Therapy programs evaluation efforts (Carpenter, 1998), supplementing the 30 wilderness therapy programs Friese found with 5 additional programs he located.

AGENCY ATTITUDES ABOUT WEPs

Since agency policies and manager attitudes greatly influence the operating environment for WEPs, and there is great concern by managers about social and environmental impacts of WEPs, we surveyed wilderness managers nationwide about their policies, attitudes and concerns about WEPs (Gager, 1996;Gager et al 1998). The study first surveyed National Forest, National Park, U.S. Fish and Wildlife Service and Bureau of Land Management *unit administrators* as to whether they had WEP use on their lands, and asked the administrator to identify their two most knowledgeable managers with regard to WEP use - one having unit jurisdiction responsibility and one a field manager. A total of 185 managers responded (76% response rate).

Here are a few highlights from his study. (1) Managers favor certain WEPs over others based on their clientele and mission, favoring WEPs that serve youth and cultivate a wilderness land ethic among their participants. (2) Managers want high WEP standards and more cooperation (50% of respondents expressed concern that WEPs dodge their permit system). (3) Managers recognize WEP benefits but don't think WEPs are wilderness dependent, i.e. they don't need to operate in designated wilderness to achieve their objectives. (4) Two-thirds of respondents said WEP use was increasing in their area, and 36% said it was increasing by more than 25% per year. This study clearly documented the need for greater cooperation between WEP operators and land managers to resolve issues in an expanding use of wilderness.

WILDERNESS THERAPY AS INTERVENTION AND TREATMENT FOR ADOLESCENTS

BEHAVIOR PROBLEMS AND ADDITIONS

The research on use of wilderness for personal growth led logically to a benchmark study of the emerging wilderness therapy industry and specifically at four wilderness therapy programs for adolescents with behavior problems—two programs featuring three-week experiences and two with eight-week wilderness experiences. The wilderness therapy industry is large and growing and our initial study found 38 known programs nationwide, with 12,000 clients annually accounting for 392,000 visitor days

to wilderness annually and generating \$143 million in revenue. (Russell and Hendee 1999). The study focused on the wilderness therapy process, attempting to discern the role of wilderness in healing and behavior change, compared to other therapeutic program elements, and to develop an outcome assessment process. This study documented the important role of wilderness as a diagnostic and assessment tool for long-term treatment of severe dysfunction in resistant and addictive adolescents, and effective treatment for those with lesser problems (Russell and others 1999a).

The study not only marked the culmination of the five-year research program, it demonstrated remarkable growth by Keith Russell as a scientist and teacher in completing his Masters degree in two years in 1996 and his doctorate in three more years in 1999. By that time Keith was writing a periodic column for a leading wilderness therapy newsletter, Woodbury Reports (Russell 1998a; 1998b; 1998c), and he defended his dissertation in front of a dozen leaders of wilderness therapy programs at UI for a wilderness therapy conference including that event and others (Kilburn 1999). At this event key leaders for the industry committed to form an Outdoor behavioral Healthcare Research Cooperative (OBHRC) at the University of Idaho to continue the research started in this program. OBHRC was formed and funded July 1999 and now employs Dr. Russell as Leader of the research cooperative in the Wilderness Research Center.

PROGRAM CONCLUSIONS

Some noteworthy conclusion from the research program include the following:

- (1) Focus groups can help synthesize narrative data: During this research program we utilized diaries, personal interviews, surveys and field observation notes, all of which generate narrative data and sometimes pre-designated, fixed response categories. Making sense of such data, even with modern qualitative analysis procedures is often difficult and inconclusive. But we found that the data can be synthesized effectively by convening a focus group of respondents, presenting the response data and letting them develop a synthesized summary through facilitated discussion. In the case of Wilderness Discovery we created focus groups of Job Corps staff who served on Wilderness Discovery Steering

Committees at each Job Corps Center and who were able to agree quite readily on program benefits and problems submitted from each center. This worked so well we used it in the wilderness therapy research to synthesize descriptions of therapy process, diagnosis and outcomes to the point where the synthesis descriptions could be utilized in qualitative analysis.

- (2) Benefits are related to wilderness program duration, intensity and follow up: Benefits from the use of wilderness for personal growth, therapy, and education seem most pronounced in programs offering longer and more intense wilderness experiences, as opposed to shorter programs and those providing more casual experience of the wilderness environment. Follow up is important—a new perspective and empowered demeanor will fade if the participant simply returns to their former culture. For example, Wilderness therapy programs are intense and long, ranging from 3-8 weeks or longer, but even then the transition and aftercare are critical to any lasting change. Wilderness Therapy is a growing activity, spurred by desperate parents of adolescents with drug and behavior problems, and health insurance companies who are beginning to co-pay for treatment (Russell and Hendee 1999; 2000).
- (3) Adolescents are the most prevalent WEP client and provide an important study population. Youth are the dominant clientele group for all types of WEPs and have been the leading clientele group throughout the history of WEPs. Studies also suggest that at-risk-youth and economically disadvantaged, multicultural youth may exhibit the greatest benefits from wilderness experience programs. Since such programs are expensive, upper middle class adolescents are the predominant clients in most programs—a few programs are specifically designed to target disadvantaged youth, (such as Wilderness Discovery) and some of the well established programs, such as Outward Bound, include scholarships for a few disadvantaged youth in some of their trips.
- Further, program leaders and our own experience suggest that multi-cultural youth face special challenges to gaining benefits from wilderness programs.
- (4) Wilderness benefits must be related to wilderness qualities and ecosystem management. If study results of the use of wilderness for personal growth are to be useful in the emerging ecosystem

management paradigm for public lands and wilderness, then the benefits of such programs must be linked to the environmentally qualities on which they are based. Thus, two studies looked at the relationships between naturalness and solitude and benefits from wilderness program experiences. The vision quest study (Riley and Hendee 1997; 1999) related benefits to naturalness and solitude, finding universal endorsement by participants that those wilderness qualities were essential to the benefits they said they gained. Another study (White 1998; White and Hendee 2000) focused on “Primal Hypotheses: The Relationships of Naturalness and Solitude to Human Benefits of Wilderness.” Benefits were classified into categories of “Development of Self” (DOS); “Development of Community” (DOC); and “Spiritual Development” (SD), with generally positive relationships identified between these benefit categories and naturalness and solitude for participants in Wilderness Discovery, *IN IDAHO* and the Vision Quest class. These studies established a positive relationship between wilderness naturalness and solitude and human benefits from wilderness experiences. These studies are just a start, but clearly link wilderness experience benefits to manageable qualities of wilderness.

- (5) The Wilderness Experience Program (WEP) Industry is large, diverse, generates substantial wilderness use and economic proceeds of hundreds of millions of dollars annually. Just as important are the social benefits from treatment of behavioral problems in adolescents, that may be more effective than residential or non-residential treatment based on the fact that increasing numbers of medical insurance and social service agencies are providing co-payment for wilderness treatment. The biggest research need is for outcome studies that document the effectiveness of wilderness programs of various types. A major study to do this is being launched by the UI-Outdoor Behavioral Healthcare Research cooperative (OBHRC) established in the Wilderness Research Center in cooperation with the wilderness therapy industry—and led by Dr. Keith Russell whose MS and Ph.D. degrees were earned in this research program.

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Video Publications

- Hendee, J.C. & Pitstick, R. (1993). Wilderness Discovery. Eleven minute video describing this 7-day backpacking program designed and tested for US Dept. of Labor-Job Corps. Available from UI-Wilderness Research Center. Moscow, ID 83843. \$8.
- Planet Grande Studio. (1997). Miracle at Trapper Creek. One hour, ABC Television documentary, January 23, 1997 about Wilderness Discovery and the Trapper Creek Job Corps Center. 44 minutes w/o commercials, available from UI-Wilderness Research Center. Moscow, ID 83843. \$8.

The Wilderness Medical Society is partnering with the University of Utah and University of Colorado to introduce this exciting program in the USA. Medical commissions of the International Mountaineering and Climbing Federation (UIAA) and International Commission for Alpine Rescue (ICAR), together with the International Society for Mountain Medicine (ISMM), established minimal requirements for these courses in 1997. The WMS Research Committee offers resources to help researchers and authors successfully negotiate the process of putting together a project and seeing it through to publication. Go. MEMBERS. Presents research that has generated a substantive result of importance for educational policy and practice; analyses of global forces, regional trends and national educational reforms; studies of key issues in teaching, learning and development - such as the challenges to be faced in learning to live together in what is the largest and most diverse region of the world. As a result of the significant disruption that is being caused by the COVID-19 pandemic we are very aware that many researchers will have difficulty in meeting the timelines associated with our peer review process during normal times. Please do let us know if you need additional time. Our systems will continue to remind you of the original timelines but we intend to be highly flexible at this time. General.