

Consortium on Law and Values in Health, Environment & the Life Sciences

Faculty Proposal Cover Page

Applicant Name: Julie Ernst Date: 1/21/08
Fostering "Connectedness to Nature" through U.S. Fish and Wildlife Service Education and Outreach Programming: An Evaluation and Validity Assessment Study

Project Title: _____
Department: Health, Physical Education, and Recreation College: College of Education and Human Service Professions

Dept. Head's name: Mark Nierengarten Dept Head's email: mniereng@d.umn.edu

Dean's name Paul Deputy Dean's email: pdeputy@d.umn.edu

How did you hear about this funding opportunity? An email forwarded to me via my department head and dean

Funding

Amount of funding requested: \$16,548

[Include a brief statement of what you will use the funds for without going into budget details]

The primary use of the funds is to support research personnel (a graduate research assistant, 25% time for two semesters), in the amount of \$12,048. Funding (\$1500) is also requested for compensation for professional services (on-site data collection assistance). Travel funds (\$3000) also are being requested.

Approvals

Check all appropriate approvals required for your proposal. Approvals must be obtained prior to receipt of funding. If you have applied for approval but have not yet received it, indicate that below.

X IRB Date submitted: _____ IRB application will be submitted by May 2008. There is initial work that must be completed in conjunction with the US Fish and Wildlife Service before our application to IRB will be submitted; that work is currently underway. Number: _____

IACUC Date submitted: _____ Number: _____

Other Explain: _____

For Use by the Consortium Office

- The proposal is 1000 words or less excluding budget, biographies, references & citations.
The proposal includes a work plan with a timeline using months or quarters to identify work to be done and completion dates.
- The proposal includes a 1-2 paragraph biography of the applicant and all co-investigators.
The budget form is complete including the funds sought for this project, other pending applications for this project, and the amount/source of matching or other funds.
- All necessary approvals are pending or received.
- For proposals for curricular innovation, a letter of support from the applicant's department head or dean is included.

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Budget for Faculty Proposals

Project Title: Fostering "Connectedness to Nature" through U.S. Fish and Wildlife Service Education and Outreach Programming: An Evaluation and Validity Assessment Study

Instructions: add rows for multiple personnel.	Description & justification	Requested funding	Matching	
		Amount	Amount	Source
Personnel: rates are based on classification 9526, using 2007-2008 fringe rate matrix (12.13% fringe for health insurance + \$12.39/hour tuition) and the minimum hourly wage from the academic salary floor from 2007-2008; rates are not yet available for the 2008-2009 academic year, thus the student may need to work fewer than 390 hours if the rates are significantly higher next year.	Salary = 390 hrs x 16.50 hrly wage	6435		
	12.13% fringe and 12.39/hr tuition	5613		
	Graduate Project Research Assistant (assisting me in carrying out research activities)			
	Subtotal	\$12,048		
Supplies & Services	Compensation for Professional Service: Per IRB approval, compensation in the amount of \$75 for each of the 20 teachers (one per study site, 10 treatment 10 control sites) who are responsible for assisting in quantitative data collection (research subjects, the students, will not be compensated in the form of research subject payments).	\$1,500		
Travel	We intend to visit 3 of the 10 sites to conduct follow-up interviews with participants to help determine what specific program aspects are associated with influencing connectedness to nature. Of the programs demonstrating a positive influence on connectedness to nature, we will select 3 closest to Duluth to visit and anticipate the travel costs to be \$1000/site. Sites cannot be identified until the quantitative portion of data collection is completed. Thus, there may be less than 3 sites (possibly none) that need to be visited. Travel money will not be used in the event that less than three sites are visited or if the cost per site is less than budgeted.	\$3,000		
	Subtotal research supplies, equipment, travel, other	\$4,500		
TOTAL BUDGET		\$16,548		

Note regarding matching/supporting funds: We have begun initial conversations with the Workgroup and the Ntl Conservation Training Center regarding funding from them (in the form of a sponsored project or professional services contract) for the planning/assessment tool development that follows this study.

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Nature/Importance

In response to growing environmental sustainability concerns, there has been a range of regulatory, policy, and educational efforts aimed at addressing specific environmental issues. While these interventions have been effective to varying degrees, conservation psychologists are suggesting “the magnitude of the environmental problems necessitate a broader intervention” aimed at changing our cultural worldview and re-connecting humans to nature (Mayer & Frantz, 2004, p. 512); this connection to nature is integral in fostering responsible environmental behavior and environmental protection (Fisher, 2002 in Mayer & Frantz, 2004).

A similar perspective is echoed in environmental education research, as environmental sensitivity is consistently associated with responsible environmental behavior. While environmental sensitivity appears to be rooted in childhood experiences in nature (Chawla & Cushing, 2007), today’s youth are spending less time in natural surroundings (Louv, 2005). Louv writes in his book, *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder*, “at the very moment that the bond is breaking between the young and the natural world, a growing body of research links our mental, physical, and spiritual health directly to our association with nature” (2005, p. 3). Louv cites associated negative outcomes, including increased rates of obesity, attention-deficit disorder, stress levels, and even a “culture of depression” (2005). Additionally, Louv asks, “if this gap between children and nature continues to widen, where will future conservationists come from?”

The U.S. Fish and Wildlife Service (USFWS) is asking the same question. In response to trends of decreasing time spent outdoors, decreasing interest in hunting and fishing, and increased societal attention on this nature-deficit phenomenon, the Director of the USFWS issued a statement listing “connecting people with nature: ensuring the future of conservation” as one of six top priorities for the Service.

Following this statement, a Children and Nature Workgroup was formed to support USFWS sites in carrying out this priority. Ultimately, the Workgroup aims to identify program characteristics that foster connectedness to nature and use them to develop a set of planning and assessment tools to guide USFWS sites nationwide in the development of outreach and education programs. To date, the Workgroup has developed a list of program characteristics (stemming from a combination of research, anecdotal evidence, and intuition) they believe are associated with fostering a connection to nature. However, before developing the set of planning and assessment tools, there is a need to assess this list of characteristics to ensure their validity.

As I work with the Workgroup as an informal member and previous USFWS employee, I see the potential for faculty research within this initiative, as it aligns with my research line in environmental education program evaluation. While evaluation research would aid the Workgroup in accomplishing their task and support their overall initiative, the University also would benefit from an association with a project that will have national implications; further, my involvement would reflect the University’s

commitment to socially-engaged, public scholarship. There also is an opportunity for involving a graduate student, thus providing a nationally-significant, real-world context for his/her thesis. Consequently, I am seeking funding to support a Graduate Research Assistant to assist me in the following:

1. Working with the USFWS, *select approximately six to ten education/outreach programs* nationwide that exhibit the characteristics identified by the Workgroup as fostering a connectedness to nature.
2. *Conduct an evaluation*, measuring these programs' influence on participants' connectedness to nature through a pretest-posttest nonequivalent control group design; for programs showing a positive influence, determine what specific program aspects/characteristics are associated with influencing connectedness to nature through qualitative methods and potentially statistical modelling.
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Innovative Contribution

This project:

- Establishes a relationship between the University and the USFWS, offering the possibility for future collaboration on environmental education projects.
- Assists the USFWS in expanding its sphere of concern to include health issues. This is a noteworthy shift, as they have traditionally focused on the life sciences and the environment, and only relatively recently expanded their concern to recreation and education. To recognize the importance of connecting children to nature for not only environmental reasons, but also for health and wellness reasons, and to emphasize an initiative addressing the interdisciplinary, societal implications of a disconnect from nature is innovative.
- Uses an approach grounded in research. With the 2005 publication of Louv's book, organizations across the U.S. responded with a wave of strategies for countering this disconnect. While well-intended, many lack evidence of their effectiveness. Thus, the USFWS's desire to begin with a research-based foundation reflects innovation.

Potential for Furthering Work

This project, particularly through the set of tools developed based on this study's results, has potential for impacting other federal land managing agencies, helping ensure agencies respond to environmental (and social) issues through educational efforts grounded in

research. Further, there likely will be opportunities for future research involving USFWS sites and UMD faculty/graduate students, addressing gaps in the literature and evaluating the effectiveness of this overall initiative.

Work Plan

By May 2008 (prior to funding)	Literature review conducted; finalization of data collection methods and instruments; IRB and OMB approval; Thesis proposal approved
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Biographies

Julie Athman Ernst, Principal Investigator: Julie is an Assistant Professor at the University of Minnesota-Duluth, teaching undergraduate courses in outdoor education and graduate courses in environmental education. Her areas of research are environment-based education in formal education settings and environmental education program evaluation. She earned her Ph.D. from the University of Florida’s School of Forest Resources and Conservation, where she studied environmental education and education research and evaluation methodology. She has formerly served as an environmental education specialist for the USFWS at Prairie Wetlands Learning Center, as an education specialist for the National Park Service at Voyageurs National Park and Badlands National Park, and as a public affairs specialist for the Forest Service at the Region 9 office.

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Sean Connolly, Co-Investigator; Chair of Project Characteristics/Criteria Subgroup, Children and Nature Workgroup: Sean is the Fisheries Information System Coordinator for the U.S. Fish and Wildlife Service's Pacific Region Division of Fishery Resources. He is currently the Region's Representative on the Services Children and Nature Working Group (CNWG), and Team Lead for the Region's Connecting People and Nature Team. He also serves as the Chair for the CNWG Subgroup for Project Characteristics and Criteria. Mr. Connolly has worked for the Service for nearly 11 years, and has a B.A. in English-Writing and Communications from the University of Massachusetts-Dartmouth and an M.A. in International Environmental Policy from the Monterey Institute of International Studies. In 1992-1994 he served as a Peace Corps Volunteer in Lithuania, where he taught English as a Second Language and environmental education. Mr. Connolly is married with two children, and serves as PTA Vice-President for the Creative Science School, a Portland Public Schools focus program, in Portland, Oregon.

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References

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*125 Bohannon Hall
1207 Ordean Court
Duluth, Minnesota 55812-3010*

*218-726-7131
Fax: 218-726-7073*

January 17, 2008

MEMORANDUM

TO: Consortium on Law and Values in Health, Environment and the Life Science

FROM: Paul N. Deputy, Dean
College of Education and Human Service Professions

SUBJECT: Dr. Julie Ernst Application for Grant

I am pleased to be able to offer my whole-hearted support of Dr. Julie Ernst's application for her grant entitled *Fostering "Connectedness to Nature" through U.S. Fish and Wildlife Service Education and Outreach Programming*. Dr. Ernst has demonstrated her strong teaching and research skills since coming to the Department of Health, Physical Education and Recreation. She has a strong record of accomplishments and follows through on all academic pursuits. She is very dedicated to getting a message of environmental awareness and care to the children, who, of course, will be the leaders in the future.

I support the goals and anticipated outcomes that she has outlined in her request. The plan that she has developed is strong and deserves consideration. If awarded, she will do well on this project. I feel that the research and the involvement of the graduate students can help to further the cause of creating a society who has shifted their thinking toward greener existence. Something was not only needed now, but was needed a long, long time ago. I believe Dr. Julie Ernst with her capability, values and dedication, will be seen as a pioneer in this effort.

ss/PND

TO: Consortium on Law and Values in Health, Environment and the Life Science

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SUBJECT: Message of Support for Dr. Julie Ernst's Grant Application

As a Representative of the U.S. Fish and Wildlife Service's Children and Nature Workgroup (CNWG), and Chair of the CNWG Project Characteristics and Criteria Subgroup, I want to extend, on behalf of the Subgroup, our strong support for Dr. Ernst's grant application *Fostering "Connectedness to Nature" through U.S. Fish and Wildlife Service Education and Outreach Programming: An Evaluation and Validity Assessment Study*.

Connecting People to Nature is one of the Service's six Directorate priorities and involves the collective efforts, in partnership with others, of thousands of Service employees nationwide at hundreds of Service National Wildlife Refuges, National Fish Hatcheries, Wetland Management Districts, and Fish and Wildlife Offices located in all 50 States and U.S. Territories. Our agency is investing significant time and energy to sustain, review, and, if needed, re-focus current or prospective programs to connect people with nature. We are placing special emphasis on children in this priority due to the growing body of anecdotal evidence and research indicating that today's young people are spending less time in natural settings and are becoming increasingly disconnected with the natural world.

Dr. Ernst's proposal will dovetail well with my Subgroup's efforts to date to devise project characteristics and assessment and evaluative tools that can be shared with Fish and Wildlife Service professionals (and other conservation professionals) seeking to conduct activities that effectively 'connect' children with nature and demonstrate results. The Project Characteristics and Criteria Subgroup is interested in grounding and validating our assessment and evaluative tools with existing research, successful approaches used with the Environmental Education field or other related areas, and in studying the efficacy of existing programs. Dr. Ernst's and Mr. Theimer's work will fill key data gaps, facilitate in the development of needed tools, and synthesize literature in a manner that we have not been able to undertake to date or fully review for validity and soundness.

The end products stemming from this proposal will, I believe, greatly facilitate our efforts over the next several years to prioritize and focus resources on approaches that work, allow my agency to function as efficiently as possible. Most importantly, I anticipate that Dr. Ernst and Mr. Theimer's research will help the Service more effectively address and facilitate American's reconnection with nature for the benefit of our trust resources and our population's health, spiritual wellness, and belief in the value and importance of natural resource stewardship and the natural world.

Feel free to contact me if you have any questions.

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Division of Fishery Resources, U.S. Fish and Wildlife Service
Portland, OR
503-231-2353

**Fostering “Connectedness to Nature” through
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