

GOING ONLINE:

EE PROFESSIONAL DEVELOPMENT MEETS EDUCATORS WHERE THEY LIVE

By Michele Archie with additional content by Sheri Sykes Soyka

JULIA BAIR DOESN'T SIT STILL MUCH. SINCE GRADUATING IN 2008 FROM THE UNIVERSITY OF WISCONSIN-MADISON, JULIA SPENT A YEAR TEACHING COASTAL ECOLOGY ON ALABAMA'S GULF COAST, AND NOW LEADS SCIENCE-BASED LEADERSHIP DEVELOPMENT AND AFTER-SCHOOL PROGRAMMING FOR GIRLS IN INNER CITY BOSTON. IN THE COMING YEAR, SHE HOPES TO SPEND TIME VOLUNTEERING ON ORGANIC FARMS IN IRELAND AND WALES, AND TEACHING SEA TURTLE ECOLOGY IN COSTA RICA.

Motivated by a commitment to nature, adventure, and sharing outdoor experiences with young people, Bair applied for the new online Master of Science in Environmental Education and Interpretation program offered by the University of Wisconsin-Stevens Point (UWSP). In fall 2010, she joined three other environmental education professionals in the first cadre of degree candidates accepted into this program.

"The flexibility and support of the UWSP Master's program fit in perfectly with my lifestyle and learning style," Bair noted. "So far, I have taken two online courses: Fundamentals of Environmental Education and Fundamentals of Natural/Cultural Interpretation. I am an introspective person; I love to read and reflect on the course material. The online format has been a great tool for me. In fact, I have engaged in more dialogue with my online professors than with many of the professors I took in-person classes from as an undergraduate."

University of Wisconsin-Stevens Point
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[NRES 703 - Leadership Development in Natural Resources: Strategic Planning and Implementation](#) was developed by a nationally-renowned expert and is available over the Internet; therefore people across the country can enroll. The course will be offered for two graduate credits, or as a non-credit workshop option. The out-of-state tuition will be waived.

[NRES 751: Applied EE Program Evaluation](#) is available for 3 graduate or undergraduate level credits through UWSP. It is also available as a non-credit workshop for those not seeking college credit.

[NRES 752: Needs Assessment in Environmental Education and Interpretation](#) is available for 1 graduate credit. It is also available as a non-credit workshop for those not seeking college credit.

[NRES 410/610/701: Fundamentals of Environmental Education](#) is available for 3 graduate or undergraduate level credits through UWSP. It is also available as a non-credit workshop for those not seeking college credit.

[NRES 440/640: Making EE Relevant for Culturally Diverse Audiences](#) is available for 3 graduate or undergraduate level credits through UWSP. It is also available as a non-credit workshop for those not seeking college credit.

Environmental Education Online Courses
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Stevens Point, WI

Over the last decade, the University of Wisconsin-Stevens Point has created five online EE professional development courses.



TAKING EE PROFESSIONAL DEVELOPMENT ONLINE

Rick Wilke, distinguished professor of environmental education at UWSP and project director for the Environmental Education and Training Partnership (EETAP) explained that the new online Master's degree program is built around the strengths of the four online courses that UWSP has developed over the last decade. These courses, he noted, were painstakingly designed, through multiple iterations, to fill specific professional development needs in the EE field.

According to Wilke, the flexible, online format is only part of the appeal of these courses for working professionals. "The courses challenge environmental educators to apply what they are learning to their own programs, and to learn from their peers. It's really neat to see the interaction among professionals on the discussion boards, sharing resources, ideas, and insights based on their experiences in the field."

"The online degree program is not for everyone. It requires a lot of planning to fit the homework in with your regular full schedule."

Jennifer Metz, Outreach and Education Specialist, NOAA

Professional development priorities identified in a survey of state and provincial EE associations in the United States and Canada provided impetus for the first four UWSP online courses: Fundamentals of Environmental Education, Applied EE Program Evaluation, Strategic Planning and Implementation, and Making EE Relevant for Culturally Diverse Audiences. A fifth course, Needs Assessment in Environmental Education and Interpretation being offered for the first time in January 2011, is based on the number one professional development need identified by EE professionals in a nationwide

study published in 2009. (Click on study name for more information on the [Environmental Education Professional Development Priorities Study](#).)

"We have seen a great demand for these courses among professionals working in the field who, for a variety of reasons, did not have access to this kind of professional education," Wilke said. "Some 1,800 learners have completed these courses since their inception, and it didn't take long before people started asking for a graduate degree program."

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Rick Wilke, EETAP Project Director and Distinguished Professor of Environmental Education, UWSP

Despite all its attractive features, Julia Bair said, "Online learning is not for the faint-hearted or procrastination-prone. It requires self-motivation and hard work. I put in many hours of reading and independent research with the UWSP program."

Jennifer Metz, an outreach and education specialist for the National Oceanic and Atmospheric Administration is another Master's degree candidate in UWSP's online program. She suggested that taking individual online classes like those offered through UWSP is a good way to give online learning a test drive. "The online degree program," she said, "is not for everyone. It requires a lot of planning to fit the homework in with your regular full schedule. Also, I do miss having the personal interaction you get from a traditional university experience."



Julia Bair holds a young alligator at nature education event in Alabama. After inspiring experiences in environmental education, Bair applied for admission into the new online Master of Science in Environmental Education and Interpretation offered by the University of Wisconsin—Stevens Point. She started classes in fall 2010, noting that the program is a perfect fit with her lifestyle and learning style.



Tammy Cherry (left) of the Institute for Learning Innovation logs improvements to be made to a new piece of online learning software as Mary Ford (right) of the National Audubon Society learns to use it. Educators point to the challenges and resources involved in developing online courses and learning experiences as a barrier to using them.

WHAT THE FUTURE HOLDS

UWSP puts its online courses through a nearly continuous process of evaluation, review, and revision. In the case of Fundamentals of EE—the first online course developed at UWSP and the course with the broadest applicability and content—that process resulted in what Wilke calls “a tremendous resource that someone at another institution can use or adapt regardless of their level of experience with environmental education or online teaching.” Over the course of six years, students from 49 U.S. states and 15 countries have taken the Fundamentals of EE course offered by faculty at UWSP and at 11 other universities.

Other UWSP online offerings, especially those with specialized content, may not be as readily adaptable by instructors with little background in EE or online education as is the Foundations course. Wilke noted, “Years ago, we realized that not all universities would be able to offer environmental education courses. And it may not make sense for them to develop their own offerings when there are excellent online courses available through other institutions.” Conversations with some of the ten universities that comprise the Natural Resources Distance Learning Consortium (a collaborative effort to provide online classes and degrees to federal agency natural resource professionals) have opened some prospects for collaboration; this is one step in the direction of making UWSP’s online offerings available to students for credit through other universities.

Wilke pointed out that the model for developing and offering these courses sustains itself over time. Initial funding by EETAP and the U.S. Environmental Protection Agency supported course development, testing, evaluation, and revision (largely by funding graduate students whose thesis projects focused on course evaluation). Now, the courses sustain themselves and tuition covers all the costs including revisions, instructors, and the online platform.

DISTANCE LEARNING COMPLEMENTS IN-PERSON ENVIRONMENTAL EDUCATION WORKSHOPS

For more than 30 years, Project Learning Tree (PLT) has used a successful model of in-person workshops to train educators and disseminate its EE activity guides. State partners conduct these workshops at the local level throughout the United States. Still, some educators have stated that it is difficult for them to get to a PLT workshop—often due to time constraints or issues with travel in large, mostly rural states.

Results from a recent survey indicate that state PLT programs are starting to use online trainings to teach educators to use PLT activity guides, to train PLT facilitators (train-the-trainers), and to provide content enrichment. These distance-learning workshops may be offered directly by the PLT state program or as a collaborative effort with a local university. Much as they would in a face-to-face workshop, participants share their experiences and resources and may be required to teach a PLT activity. University credit or continuing education credits is typically offered, and the time requirements for these distance-learning courses vary.

The Florida PLT program recently designed online training in PLT’s PreK–8 Activity Guide that is specially tailored to the unique professional development needs of 4-H leaders. Florida PLT also developed an asynchronous online training for PLT’s high school guides. In addition, short online modules provide content on topics educators frequently request more information about, such as how to identify trees. Educators can use a single module for reference or complete the entire professional development series for a certificate.

The Kansas PLT program currently trains about 30 educators per year through their online workshops, but hope to expand their

offerings. Laura Downey, the Executive Director of the Kansas Association for Conservation and EE remarked, “offering teachers the opportunity to enroll in asynchronous online PLT workshops opens up a whole new audience for EE. Working in a state this large, we don’t always have workshops available where teachers need them, when they need them—this way they can attend a workshop from their schools or home on a schedule that best suits their needs. The challenge now is taking the online PLT workshop to the next level—where participants get an experience online that fully capitalizes on the technological possibilities.”

Sue Wintering, the PLT Coordinator for Ohio, has developed an online training for its state network of workshop facilitators. It is offered as a graduate course through the Miami University of Ohio. Sue commented, “One of the main advantages of our online training is that it brings together such a diverse group of participants that might not otherwise occur.” Recent participants included formal educators, university professors, nonformal educators, and retired teachers from urban and rural communities across the state. The course starts with an initial in-person meeting. It lasts about 2½ months and is considered a highly qualified course for state licensure recertification requirements.

University faculty participating in the PLT-OH online facilitator workshops have consistently said in evaluations that this format was ideal for them and possibly the only way they could have participated. They all have since used PLT in their classes.

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Laura Downey, Executive Director, KACEE

PLT’s online community, ConnectPLT (<http://connect.plt.org>), offers another example of how PLT is using technology to help environmental educators collaborate. This site provides a forum for educators to share EE ideas and success stories, access selected PLT activity guides, join and form groups related to professional development topics, blog about their PLT experiences, and learn from educators around the country and world. The site also allows state PLT coordinators to develop their own groups in which state-specific information can be shared. Since its launch in 2009, more than 570 educators have joined this online community.

Kathy McGlaufflin, the Senior Vice President and Director of PLT, commented “The online trainings are meant to complement the valuable interactions that occur during in-person workshops where participants model PLT activities, get outside to explore the resources in their communities, and share experiences. PLT will continue to explore how to best meet the needs of educators through a diverse array of online and in-person workshops.”

National Audubon Society uses Facebook to connect national education staff and local centers to each other. Recent discussions on this page have focused on ideas for using webinars for public education, feedback on learning software packages and websites, and sharing resources.

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TAKING PROFESSIONAL NETWORKS ONLINE

“When I look back over the past two years, adding a web office platform to our network has helped tremendously—especially since we are only physically together once a year,” reflects Laurina Lyle, Project WET USA executive director. “I see that the ways we communicate and distribute information today really enhance our professional development and growth as a network of coordinators and educators.”

Lyle explained that traditional means of disseminating information, such as newsletters, faxes, and conference calls with note takers, while still effective, also run the risk of setting up a “static” communication line for ideas, in which some people in the network serve as communicators and some as passive receivers of information. “Communication,” Lyle noted, “shouldn’t be reduced to reporting. Great ideas run the risk of being lost as they are reinterpreted over and over again throughout the network. We’ve all played the game Telephone and know how funny the results can be when the last person says what they heard. How did the starting phrase, ‘Liberty and Justice for All’ end up as ‘Berty and Justine went to the Ball?’”

Since 2008, Project WET has been using the Project WET USA web office, an intranet, online space for storing and sharing documents, holding discussions, generating databases, keeping calendars, administering surveys, and other collaborative functions. This web office has replaced faxes and e-mail “blasts” as the primary vehicle through which Project WET and its network of state coordinators connect, communicate, and do their jobs.

Starting in mid-2011, this web office will expand further as a portal is added for all educators involved in Project WET—coordinators, facilitators, teachers and nonformal educators. Eventually, students will have access, too. Users will have different levels of permission to upload documents to share, start forums, alter databases, and participate in the online community.

“The shift to using a web office has not replaced the collegiality of our network, rather it helps by allowing all coordinators to have access to information at any time they need it. No one needs to feel out of the loop because our information is all archived and easy to get to,” Lyle said. “But with so many new technologies available to networks such as ours, it’s a challenge to choose what is best for us and how we can acquire these skills.”

Three environmental educators examine tracks in the snow, investigating which animals are active during the winter and looking for clues to animal behavior. A nationwide survey found that this kind of experiential approach to professional development is highly favored by educators, while they are less open to participating in professional development delivered online.



Courtesy Ashlyn Kite-Harwich

Our goal is to have the same high quality of program no matter where that program resides. With the recent economic turn down, a web-office and web-based training is part of the solution when state travel is restricted and advanced training limited.”

Project WET offers a technology section at its annual conference and online webinars to walk through key aspects of the web office. Coordinators who master particular skills or functions share their expertise with others through one-on-one mentoring.

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*Laurina Lyle, Executive Director,
Project WET USA*

Exactly what the web portal becomes over time will be guided by the educators who use it—and, Lyle believes, influenced by the enhanced technological content of the revised Project WET Activity and Curriculum Generation 2.0 Guide scheduled for release in July 2011. “Of course, we’ll have student copy pages and lesson plans available online,” Lyle said, “but the question of what kinds of professional development educators really want from Project WET USA is yet to be determined. I think we’ll have lots of opportunities to teach water education, and through technology we can reach even more educators.”

PLT also has been using online technology to encourage two-way communication. For more than ten years, PLT’s listserv has been used by its network of state coordinators to start conversations related to implementing PLT at the state level. This has helped new coordinators tap into the wealth of knowledge that seasoned coordinators have accumulated and it has allowed states to quickly and efficiently share documents, workshop agendas, forms, and so forth. It also provides an efficient means for the PLT national office to communicate with its state partners.

THE FUTURE IS HERE, IT’S JUST NOT WIDELY DISTRIBUTED

Science-fiction author William Gibson’s oft-repeated formulation aptly describes the adoption of online learning tools in EE: “The future is already here, it just isn’t widely distributed yet.”

Beyond larger efforts such as those at UWSP, Project WET and PLT, environmental educators are using the Internet to enhance professional development in a variety of ways. Project WILD has delivered course content using the voice-over-IP service, Skype. National Audubon Society hosts frequent webinars to connect, inform, and share resources within its network—and employs Facebook, SharePoint, and Google collaborative tools to disseminate information and encourage collaboration. The Southeast Environmental Education Alliance hosts a website that lists EE events, jobs, resources, organizations, schools, and news—all contributed by a community of users in eight states.

Responding to user demand and available technology, the North American Association for Environmental Education has transformed its EE-Link resource directory website into *EElinked*, a networking site for a global community of environmental educators. The new site enables interaction among educators wishing to share materials and ideas in public or private networks. It supports online or in-person professional development events by providing a vehicle for distributing materials and hosting online dialogue.

“Online delivery has garnered interest among educators for a variety of reasons—expanded reach, accessibility, depth, and costs among them. Despite its appeal, however, widespread adoption of online delivery of EE professional development may be quite a distance away.”

As has been suggested, online delivery has garnered interest among educators for a variety of reasons—expanded reach, accessibility, depth, and costs among them. Despite its appeal, however, widespread adoption of online delivery of EE professional development may be quite a distance away. In the 2009 Environmental Education Professional Development Priorities Study mentioned above, online vehicles received a lukewarm welcome from educators. Among study participants, there was an overwhelming preference for—as well as a greater likelihood of partaking in—professional development opportunities that include experiential or hands-on components. (See table, page 7)

This study identified the current economic situation, lack of time, and limited or no travel funds as impediments to EE professional development, perhaps indicating a growing role for online delivery vehicles. However, openness to participating in online instruction varied according to age/experience level in EE and according to the institutional setting in which educators work.

TABLE
 Survey question from 2009
 Environmental Education
 Professional Development
 Priorities Study: How likely
 are you to participate in
 professional development
 opportunities delivered in
 the following ways?

ANSWER OPTION	RATING AVERAGE (on a three-point scale, on which three indicates the strongest likelihood)
One-day, in-person workshop	2.68
Local or regional meeting or seminar	2.63
Local or regional EE conference session	2.57
Field work with natural and/or social scientists	2.50
Field trip	2.37
Multiple-day, in-person workshop	2.34
Extended online workshop or course, ongoing and available at any time	2.08
Laboratory work with natural and/or social scientists	2.05
Mentoring or peer coaching	2.05
Self-directed learning using books, audio, video	2.04
One-to-two-hour web seminar offered at specific times	2.01
Self-directed online learning using web-based activities such as webinars, social networking, listservs, websites, twitter, and blogs	2.00
National or international EE conference session	1.98
EE sessions at national or international non-EE conference	1.96
Study or learning groups of peers	1.93
Extended online workshop or course with set meeting times	1.87
Teleconference, video conference	1.84
National or international EE conference discussion group	1.83
Course for college credit	1.81
Pre- or post-conference session	1.75
Course for in-service credit	1.7

“Among study participants, there was an overwhelming preference for – as well as a greater likelihood of partaking in – professional development opportunities that include experiential or hands-on components.”

SHAPING ONLINE LEARNING THAT WORKS FOR EE PROFESSIONALS

Synchronous online sessions, self-directed learning, and online networking are becoming increasingly common among environmental education professionals. Many professional organizations and EE projects use remote learning or networking to augment traditional face-to-face training workshops. An example: The Canadian Network for Environmental Education and Communication (EECOM) organized three online workshops to help participants prepare for its November 2010 National Leadership Clinic. The sessions, which took place in the four months prior to the clinic, were based on professional development needs identified by participants and focused on networking and organizational assessment.

Less common in the realm of EE professional development is asynchronous, online-mediated learning—the approach that UWSP's online courses use. While educators prefer this approach over other online professional development delivery options, it can be challenging and resource-intensive to create. Barriers identified by educators who offer professional development include software selection, the time required to develop online courses, and demands on course instructors to review and respond to volumes of participant dialogue and comments. More fundamentally, as one EE professional development provider pointed out in a recent informal survey, amidst all the dynamics of an online program, “modeling activity lessons—the core of our hands-on learning approach—can get lost in the shuffle.”

“We’re on a continual learning curve to integrate the kinds of tools that really make online learning come to life.”

Rick Wilke, EETAP Project Director and Distinguished Professor of Environmental Education, UWSP

For educators who are committed to hands-on environmental education, learning online can seem impersonal, removed, and ineffective. It can also challenge instructors and course developers to harness the power of online technologies to create vehicles for interaction and assessment that engage learners and improve instruction. The Open Learning Initiative, an online education research, development, and delivery program spearheaded by Carnegie-Mellon University, is premised on the idea that “the most powerful feature of web-based instruction is that it allows us to embed assessment into every instructional activity and use the data from those embedded assessments to drive powerful feedback loops for continuous evaluation and improvement.”

That may sound impossibly technical, but it does not have to be so. Online journaling about hands-on activities and learning is one mechanism that gives online course instructors a window into students’ learning processes. Group work on collaborative sites that promote discussion, questions, and critique is another. Online forums for student review of other students’ work are another.

For Rick Wilke at UWSP, “creating this kind of peer interaction and instructional feedback is what differentiates education from information sharing, and it’s what makes our online programs tick. As course developers and instructors, we’re on a continual learning curve to integrate the kinds of tools that really make online learning come to life.” Environmental educators excel at making learning come to life, so the future of online EE training is likely a bright one.

RESOURCES

Learn more about online EE courses offered by UWSP and the Master of Science in Environmental Education and Interpretation at <https://campus.uwsp.edu/sites/cnr-ap/omseei/Pages/default.aspx>.

Learn about the Natural Resources Distance Learning Consortium at <http://www.iddl.vt.edu/domains/cnr/index.php>.

Access the Southeast Environmental Education Alliance’s resource page at <http://southeastee.org>.

Join in the EELinked at <http://eelinked.naaee.net>

To learn about other EE programs mentioned in this article visit the following sites:

<http://www.projectwet.org>
<http://www.councilforee.org>
<http://education.audubon.org>
<http://www.plt.org>

Learn about the Open Learning Initiative at: <http://oli.web.cmu.edu/openlearning/initiative>.

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