

2006 Aquatic Resource Education Association Conference Program Presentation Abstracts

Concurrent Session 1

Working as a (STREAM) Team Educates While Conserving our Natural Resources

Steve Filipek, Arkansas Game and Fish Commission

Aquatic Resources Education can be accomplished via a number of avenues, including training and educating by means of a citizen based volunteer program aimed at conserving our stream and other aquatic resources. Since 1996, the Arkansas Stream Team program has increased from a dozen teams learning about aquatic resources and then putting that training into practice to over 500 teams in 2006 working in most every county in the state to improve the habitat, water quality, and general aquatic natural resources in *the Natural State*. The main tenets of the program are Education, Stewardship, and Influencing the Decision Making Process in order to conserve our aquatic resources and their associated fauna. Several examples stressing the educational aspects of this highly successful program are given via PowerPoint as well as DVD presentations.

Concurrent Session 2

Mini Urban Fishing Symposium

Tom Lang, Aquaculture/ Fisheries Center of Excellence, University of Arkansas at Pine Bluff
Kevin Hunt, Mississippi State University
Clifton Jackson, Arkansas Game and Fish Commission
Rick Eades, Nebraska Game and Parks Commission
Cliff Hutt, University of Arkansas at Pine Bluff

This session is meant to be a primer for the Urban Fishing Symposium that will be held at the AFS Annual Meeting in San Francisco, September 2007. The presentations that will be given here are mainly on preliminary work and are meant to give a basic overview of what to be expected at the symposium, case studies, research, and broad invited topics. The panel discussion will allow for more in depth discussion on aspects that AREA members are interested in.

Concurrent Session 3

3-1 An Evaluation of Montana's Hooked on Fishing Program

Lisa Flowers, University of Montana
Dave Hagenruber, Montana Fish Wildlife & Parks

A central component of Angler Education in Montana is offered by Montana Fish, Wildlife & Parks, and called the *Hooked on Fishing* program. This program has been in Montana

classrooms since 1996, and reaches about 4000 students each year. In 2005, a large-scale evaluation of *Hooked on Fishing* was undertaken, managed by FWP's angler education specialist and a doctoral student from the University of Montana. In this evaluation, students in approximately 125 classrooms were surveyed about their attitudes, beliefs and knowledge regarding fishing and aquatic resources. Evaluations were conducted both before and after taking part in the *Hooked on Fishing* program during a single school year, and compared to students not involved in the *Hooked on Fishing* program. In addition, all participating classroom teachers were surveyed, as were all instructors involved in program delivery. This presentation will discuss Montana's *Hooked on Fishing* program, the evaluation and its results.

3-2 National PE Grants Initiative Evaluation

Mike Bolinder, Future Fisherman Foundation

Jim Stewart, Recreational Boating & Fishing Foundation

Beginning the fourth grant cycle, the National PE Grants Initiative Evaluation provides critical insights into how this program can be used to create awareness; develop skills and increase student awareness of aquatic resource stewardship issues.

3-3 A Path to Fishing Participation and Stewardship

Tony Fedler, Human Dimensions Consulting

Our understanding of how fishing and boating skills, interest in the activity, intentions to engage in the activity in the future, and aquatic resource stewardship are inter-related is very elementary. Evaluation of the National P.E. Grants Initiative was designed to improve our understanding of these relationships and help provide guidance for future program development. Three years of research on the outcomes and benefits of the school fishing and boating units has resulted in another benefit; a clearer picture of how skills, interest, intentions and stewardship are related. Using a correlation technique known as Path Analysis, which accounts for the influence of intervening variables on the relationship between two variables, a model has emerged that shows that improving skills alone does not lead to an increase in desire to go fishing or boating. In this case, interest in the activity must also increase for intentions to increase. Without a concomitant increase in interest, the strength of the relationship between skills and intentions plummets. The model for stewardship is not as straight-forward. Many factors, exogenous to fishing and boating participation, affect an individual's concern for aquatic resources. Implications for fishing and boating program development will be discussed along with recommendations for extending our understanding of factors affecting aquatic resource stewardship.

Concurrent Session 4

4-1 Cloning; Our Best Option

Ann Miller, Aquatic Education Coordinator, Texas Parks and Wildlife.

Brenda Justice, Aquatic Education Specialist for Houston, Texas Parks and Wildlife

For the past five years, Texas Parks and Wildlife has been involved in a secret cloning experiment. Deer with a higher Boone and Crockett rating? A species that eats fire ants? I'm sure many in our state would applaud those cloning efforts, but budget cutbacks have forced us to try to clone ourselves. With only three Aquatic Ed specialists to cover the entire state (each one would have a population more than that of Indiana and a distance to cover almost 2 ½ times the size of Indiana), cloning seemed the only way. Of course, our method of cloning ourselves isn't the normal way. Our mission was to develop a volunteer network (a series of clones who would do our bidding) to provide angler education programs across the state, targeting youth, families and minority populations especially (but not restricted to) folks in our urban centers. Using the "Best Practices" model as a guide, our angler education program has been built on the following foundation: 1) hands-on fishing education curricula for different abilities, different ages and that incorporates stewardship; 2) incentives both to instructors and students to participate fully in the program; 3) educational materials and fishing equipment loaned or provided to volunteers; 4) frequent communications with volunteers using newsletters and e-mail; and 5) making clones of ourselves out of local citizens who share our same goals. With examples of the first four parts of that foundation provided on display at the session, this presentation will focus on the fifth part of that foundation; 1) How do we identify likely subjects and then make them into our clones? 2) How do we support a network of clones who will carry out our mission over the long haul? and 3) How do we gauge the success of our efforts?

4-2 *Go Play Outside*

Keith Underwood, Washington Department of Fish and Wildlife

Washington is fortunate to have a rich diversity of habitats, fish, and wildlife species. A large variety of year-round and seasonal outdoor recreational opportunities exists here that have become part of our traditions and heritage in the Pacific Northwest. If we expect our youth to be stewards of these natural resources and wild places, it is essential that they directly experience and learn to appreciate and love the outdoors. A major emphasis of the "Go Play Outside™" initiative focuses on youth. Hands-on experiences through mentoring opportunities provided by established outdoor users are a priority. WDFW recognizes partnerships with local, state and national organizations, nonprofits groups, license dealers and outdoor recreation groups to help sponsor and provide "Go Play Outside™" events.

4-3 *A Partnership in Progress*

Michelle Kelly, Education Specialist, Angling and Aquatic Education, MinnAqua Program

In 2001, the MinnAqua Program, Minnesota's angling and aquatic education program, initiated an interagency partnership to house a MinnAqua Education Specialist with the Minnesota Department of Education (MDE) to expand educational outreach efforts by focusing on target audiences of preK-12 students and teachers as identified in the state's *A GreenPrint for Minnesota: State Plan for Environmental Education* and the *DNR 2000 Cornerstones Report*. Learn how this partnership incorporates and addresses the RBFF Best Practices as MinnAqua continues to develop and improve its angling and aquatic education efforts, and how it has enabled MinnAqua to stay abreast of educational initiatives, such as the development of the 2004 Minnesota Academic Standards, and develop relationships that provide easy access to a wide range of formal education professionals. The partnership with MDE will continue to enable MinnAqua to better connect with teachers, curriculum

planners, and school districts more effectively. Which expectations were met, which expectations have yet to be achieved, what were the challenges, and what might the future hold? How does this interagency partnership continue to provide benefits to both agencies and the future of angling and aquatic resources education in Minnesota? Examine how your program can pursue a stronger partnership with your state Department of Education, and brainstorm possible short-term and long-term future benefits. This session adds value to the field by providing a model for Fishing and Aquatic Education Programs wishing to develop partnerships with their State Department of Education with the intent of “building a more effective program”.

Concurrent Session 5

5-1 Why understanding the motivations and constraints to angling by urban residents can help you target your resources to help urban communities maximize EE capacity building.

Roland Sigurdson, MinnAqua, Minnesota Department of Natural Resources.

Participation in angling and other outdoor recreational activities has been decreasing in urbanized environments. Factors including aging, immigration, and busy urban lifestyles are reasons cited for decreased angling participation in these urban centers. The Minnesota DNR has implemented programs to foster aquatic education and cultivate angler opportunities in the seven-county metropolitan area surrounding Minneapolis and St Paul, Minnesota. To improve the effectiveness of these programs, an analysis of the attitudes and beliefs about and participation in angling was needed. The last 30 years has seen rapidly growing African American, Asian, Hispanic and other minority populations in the seven-county area. This region reflects 78% of the ethnic diversity in Minnesota. Understanding constraints that limit angling participation for both traditional and underserved populations is important to facilitating opportunities for all Minnesotans. This study provided quantitative data describing the perception and participation of traditional and underserved populations towards angling. Data will be used to develop directed strategies to foster greater participation in angling and measure effectiveness of programs.

We will examine some case studies of on going partnerships with various community organizations, schools and local units of government, and how our successes can help you to create models for this type of environmental education in your area.

5-2 Fisheries Tour Packet - Evaluation Beginnings & Findings

Nadine Meyer, MinnAqua Education Specialist, Minnesota Department of Natural Resources

In 1995 MinnAqua developed the Fisheries Tour Packet to supplement Hatchery Tour Programs with educational activities that educators could use at their site before and after attending a Hatchery Tour. The Fisheries Tour Packet was developed based on an apparent need by educators for more information on fisheries management. A survey was sent out to fisheries specialists and hatchery managers in the Minnesota Department of Natural Resources to gather what type of information should be included in the Fisheries Tour Packet. The survey also asked for feedback on how to administer the program. The Fisheries Tour Packet was evaluated again in 2006 as part of an online Environmental Education Course taken by Nadine Meyer, one of the

Education Specialists for the MinnAqua program. Through the beginning of this currently ongoing evaluation process, many changes have begun on the Fisheries Tour Packet. This presentation will describe how the evaluation process has changed the focus of the Tour Packet and what types of evaluation will be conducted on the Tour Packet over the next year.

5-3 Curriculum Exchange

Dawn Miller-Walker, IGFA Education & Junior Angler Director, International Game Fish Association

This program will encourage other organizations to exchange ideas and programs with each other. As organizations use each other's programs, they will give credit to the original organization in the title of the program they are using. For example, if Organization B uses IGFA's Casting for Conservation, Organization B will advertise in their course guide as "*Come join in the fun while participating in IGFA's Casting for Conservation!*". Curriculum Exchange will help many organizations: non-for-profit, private, state, federal, etc. to promote their organization in more areas and will offer a more diverse curriculum across the nation.

Concurrent Session 6

6-1 Factoring Gender and Age into Adult Outdoor Recreation/Education Program Development

Shann Paul Jones, Instructor of Outdoor Activities & Interdisciplinary Graduate Student
University of Alaska Fairbanks.

Two foci predominate adult North American outdoor education programs: teaching novice-level skills, and presenting environmental stewardship topics to more experienced recreationalists. This ingrained bias isn't easily attributed to area ecological factors, and are often linked to agency points of view. Therefore, two questions should be posed, "Are we offering women and men the recreation skills and scientific topics they want or think they should learn in the outdoor education programs we offer? Moreover, are we ignoring the educational needs of adults in different age groups?" To help answer this question, a comprehensive questionnaire was distributed to the general public gauging their educational wants and requirements among various topics within one outdoor recreation activity: fly fishing. This presentation clearly outlines how recreation planners can create satisfying outdoor experiences for women and men. Also, by integrating the surveys' results, model outdoor education programs can be developed that serves a broader age spectrum of ages. Upon further study, the author noticed a few variations to the aforementioned predominate outdoor recreation pedagogy. This presentation also brings to light these notable exceptions and effective alternative programs. Such examples provide insight and possible solutions to stagnant adult participation levels faced by those people.

6-2 Making a Resource Steward

Jim Stewart, Recreational Boating & Fishing Foundation

Increasing the level of environmental stewardship participation among the general public is a critical yet daunting task in the quest to preserve and protect the nation's natural resources. Without the support and cooperation of individual citizens, the overall mission would be impossible to accomplish. However, it is not clear how best to enfranchise the citizenry and engage them around environmental stewardship behaviors.

RBFF engaged the services of the Conservation Management Institute and Department of Fisheries and Wildlife Sciences at Virginia Tech conducted a national mail survey during the fall of 2004 to provide insight into what "makes" a resource steward.

Results of the research will be shared as well as possible plans and next steps for communicating results and opportunities inherent in the research.

6-3 History of Catch and Release

Jon Lyman, Alaska Department of Fish & Game

Catch and release fishing has its origins in antiquity and can be traced through literature spanning the Asian, European and North American continents for nearly two millennia. This presentation focuses on the diverse philosophical, moral and social underpinnings of catch and release fishing as a background to understanding its application in modern times.

Concurrent Session 7

7-1 The Alaska Dept. of Fish & Game Rural Outreach Education Program

Erik Anderson, Aquatic Education Specialist, Alaska Department of Fish & Game, Sport Fish Division

The Alaska Department of Fish & Game, Division of Sport Fish, has recently expanded its successful aquatic education program to include the rural areas of Alaska. The Rural Outreach Education Program serves the interior, northern and western areas of the state where small Eskimo and Athabaskan Indian villages are situated amidst the spectacular beauty of Alaska. These villages are only accessible by boat or plane. The Native peoples in rural Alaska have maintained a subsistence lifestyle in which hunting and fishing still provide the bulk of a village's food. Sport fishing has traditionally been frowned upon in these areas. Catch-and-release was often referred to as, "playing with your food". In recent years, however, there has been a newfound interest in guiding as a source of income in areas where job opportunities are scarce. In this presentation, the author will share some of the successes and difficulties of developing this relatively new program.

7-2 Outreach to Hispanic Families: Developing a Model

Ann Miller, Texas Parks and Wildlife Department

Brenda Justice, Texas Parks and Wildlife Department

Recognizing Texas' growing Hispanic population, Texas Parks & Wildlife Department (TPWD) partnered with RBFF to develop and implement an integrated marketing and grassroots education pilot program aimed at increasing participation in fishing and aquatic stewardship among Hispanic families in Houston. Built upon the Take Me Fishing™ campaign, this multi-

year program includes numerous partnerships and a variety of outreach activities and educational events. TPWD developed its program through utilizing a best practices approach including: involving a team of TPWD staff from different divisions in program planning, implementation and evaluation; exploring new external partnerships and opportunities; and utilizing numerous communications channels. This presentation will share the program development and evaluation, what has been learned so far, and next steps.

7-3 Casting for Conservation

Dawn Miller-Walker, IGFA Education & Junior Angler Director, International Game Fish Association (IGFA) Fishing Hall of Fame & Museum

Participants are going to use a fun, hands-on method to learn about habitat conservation through fishing. Participants will cast (with a rod & reel) into a habitat, pick a card depicting a fish relating to that habitat, then decide whether or not to catch (keep) or release. Information relating to that fish is on the backside of the card and will offer the burden of decision making. Materials to hand out: program information, IGFA information, and FWC regulations.

Concurrent Session 8

8-1 Evaluating the Effects of Idaho's Free Fishing Day

Amy Parrish, Idaho Department of Fish & Game

Like many state agencies, the Idaho Department of Fish and Game sponsors fishing programs during its annual Free Fishing Day at many locations around the state. While kids and adults generally have a good time, little understanding of who attends these events and how the agency benefits can be found. The department evaluated its Free Fishing Day programs in 2005 and 2006 to determine if they were helping meet agency recruitment and retention, and other goals. Participants were surveyed on-site during both years to determine previous fishing experience, reasons for attending the events, and license buying status.

8-2 A Fishing Derby Program's Influence On Effort and Harvest at Derby Locations

Thomas J. Lang, J. Wesley Neal, and Clifford P. Hutt; Aquaculture/ Fisheries Center of Excellence, University of Arkansas at Pine Bluff.

Recruiting new anglers is a primary concern of fish and game agencies, and successful recruitment depends on reaching new anglers at a young age. Fishing derbies are a common recruitment technique, yet their effectiveness is rarely evaluated. Arkansas Game and Fish Commission (AGFC) currently supports fishing derbies by stocking catfish into derby ponds prior to derby events. We are evaluating the derby stocking program to determine if derbies increase fishing effort at derby locations following the event, and if derby events recruit new anglers. We are sampling a total of 32 derby events stratified evenly between rural and urban locations, and between derby events that are open or closed to the public. We have currently completed sampling on 13 derby events. Preliminary findings indicate that fishing effort on derby ponds increased significantly the week after a derby event ($Z = -2.91$; $P = 0.0037$). Derby

participants were primarily Caucasian (67%), while those fishing on the ponds before and after the derbies were primarily African-American (52%). Finally, the majority (89%) of adults that participated in or accompanied children at derbies reported either currently possessing a fishing license or having possessed one in the past. Although our results are incomplete, it appears that derbies increase angling at derby locations outside of derby events. Also, although many derby participants are not new to fishing, derby events may play an important role in retention of anglers through increased contact with the sport.

8-3 Best Practices Evaluation Companion

Jim Stewart, Recreational Boating & Fishing Foundation

The purpose of this guide is to provide evaluation information and support to aquatic educators. It is intended to assist educators with planning, creating, conducting, and reporting the results of evaluations. The guide is extensive and designed to be employed by a range of practitioners. The presentation will provide top line insights into the new Evaluation Companion as well as soliciting feedback on usage and adaptations.

Concurrent Session 9

9-1 Youth and Families: Family Tyes and You Making a Difference

Paul Hindes, Family Tyes

Family Tyes is a 501 C-3 Non-Profit organization that is committed to youth development, family values and environmental conservation. Fly-fishing activities are organized to promote educational experiences and to connect youth, schools, families, businesses and communities. We believe that connecting youth to the outdoors is the most important conservation program in our nation. The Search Institutes 40 Developmental Assets serve as the guiding principles for all programs and activities. We offer: Club Programs, Mentor and Student Mentor Programs, School Programs, Business Programs, and Outreach Programs. Our purpose is to provide AREA with the opportunity to learn more about what we do and develop pathways to combine our efforts through strategic collaborations. This session will provide the opportunity for AREA members to provide input and strategies that will connect all involved to the common thread of making a difference in the lives of youth and families with fly fishing utilized as the vehicle of choice.

9-2 *Fly Fishing Education Program Development*

Shahab Farzanigan, Alliance for Fly Fishing Education.

Given demographic trends and forecasts, tens of thousands of people will seek fly-fishing education assistance in the next few years. Unfortunately, individual organizations often can't fill the requests for assistance they currently receive. At the same time, there are individuals with decades of experience as fly fishers across the country that are willing to teach if asked. Many organizations have developed successful education or outreach programs that represent the diversity that is fly-fishing. However, the effectiveness and reach of these programs will be

greatly enhanced through better partnering, resource sharing coordination and use of Best practices in delivering aquatic education programs. The Alliance for Fly Fishing Education (AFFE) has identified the need to facilitate collaborative efforts, develop volunteers, facilitate access to resources, make program improvements and exchange information allowing for the successful promotion and expansion of fly fishing education programs in America.

9-3 National Conservation Education Program

Sharon Rushton, AFWA Conservation Education Program

The Association of Fish and Wildlife Agencies has started a movement to strengthen and unify conservation education to elevate conservation education, achieve excellence and advance the conservation education agenda. We invite AREA members to stay abreast of the latest developments and to provide input on what is needed and how we proceed in the future. We will review the AFWA North American Conservation Education Strategy, Conservation Education Concepts, the outcomes, outputs and impacts that have been identified for the top 10 concepts, and discuss how we can keep AREA members involved.

Concurrent Session 10

10-1 Programming Seminar

Doug Darr, Alabama Wildlife and Freshwater Fisheries Division

Steven Campbell, Texas Parks and Wildlife

This session encourages conference participants to bring and share programs ideas, tips and techniques they have found particularly successful.