



AES News, Fall 2001, Vol. 4, No. 4

LETTER FROM YOUR PRESIDENT

Dear AES Members,

Change is inevitable. While change often illicit a defensive response, when embraced change can provide new and exciting opportunities on both personal and organizational levels. We know, for example, that demand for aquaculture products will increase several fold over the next few decades. Satisfying this demand will require new technologies, many based on application of engineering principles. Change occurs through innovations resulting from chance and programmed assemblages of needed resources, talent and supporting data. AES is positioned well to accelerate progress (change) by providing needed forums for research needs assessments, prioritization, team development and dissemination of research program outputs. This is achieved through organization and participation in AES sponsored symposia, committee action and through use of our official outlet, the journal *Aquacultural Engineering*. In this last newsletter of the year, you will see highlights of the *AES Issues Forum* held November 11-14, in Shepherdstown, West Virginia. You will also read about several important future AES activities including three workshops held in conjunction with *Aquaculture America 2002* (San Diego, CA), the *4th International Conference on Recirculating Aquaculture* (Roanoke, VA), and the *World Aquaculture 2002 International Conference* (Beijing, China). Please plan to support AES and the industry it strives to serve by actively participating in these important events.

I would like to thank the AES Board of Directors, Officers and Committee members for their input and hard work during my term as President. I am particularly indebted to Steven Summerfelt, First Vice President, for his management of the Issues Forum and to Brian Vinci for carrying a very heavy load as Secretary/Treasurer.

Have a great year!

Barnaby

Barnaby Watten, President
Aquacultural Engineering Society

The 2001 AES Issues Forum a Success

Over 80 engineers, scientists, and industry leaders attended the *2001 AES Issues Forum*, which was held November 11-14 in Shepherdstown, West Virginia. These AES members gathered to present, listen to, and reflect upon the recent advances that have been made in the field of aquacultural engineering. Twenty-six invited speakers presented on six special topic sessions that included: Engineering Challenges for Aquaculture Effluent Treatment (Chair, Shulin Chen), Pond Production Methods (Chair, David Brune), Net Pen Systems (Chair, John Riley), Ozone & UV Treatment (Chair, Steven Summerfelt), Bacterial Systems for Aquaculture Water Treatment (Chair, Sean Wilton), and Aquacultural Engineering Research Needs (Chair, Joseph Hankins). The majority of these presentations were outstanding! Discussion and audience participation were encouraged following each presentation and also during several social events, including a banquet with a Keynote Presentation by Dr. Jason Clay of the World Wildlife Fund (Washington D.C). Many of the attendees also toured the facilities of the Conservation Fund Freshwater Institute and the recently completed USDA-ARS National Center for Cool and Cold Water Aquaculture. Both facilities provided an opportunity to see state of the art water treatment equipment in use on a large scale.

A proceedings that contains all the papers presented during the *2001 AES Issues Forum* is now available to order through the Natural Resource, Agriculture, and Engineering Service (NRAES #157). Contact NRAES if you are interested in purchasing a copy: NRAES, Cooperative Extension, 152 Riley-Robb Hall, Ithaca, New York, 14853-5701 (phone: 607-255-7654; fax: 607-254-8770; or Email: nraes@cornell.edu)

This was the 2nd *AES Issues Forum*. The first *AES Issues Forum* was held in 1999 on the campus of North Carolina State University in Raleigh, North Carolina.

UPCOMING MEETINGS

Aquaculture America 2002

The California Aquaculture Association will be hosting *Aquaculture America 2002*, which will be the next meeting of the US Chapter of the World Aquaculture Society. The *Aquaculture America 2002 Conference and Tradeshow* will be held January 27-30, 2002, at the Town and Country Resort in San Diego, California, USA. The AES Officers and Past AES Presidents welcome you to visit the AES booth (# 1053) at the tradeshow. For more information on the overall program and tradeshow at please contact John Cooksey, WAS Director of Conferences (phone: +1 760-432-4270; fax: +1 760-432-4275; e-mail: worldaqua@aol.com), or visit the World Aquaculture Society's website at: <http://www.was.org>

Michael Timmons has organized three AES workshops that will be held in the Pacific Salon 3 on Tuesday, January 29. The Workshops are titled: "Production System Designs for 50 Ton per Year Farms or Modules," "Effluent Wastewater Treatment", and "Design of Intensive Shrimp Systems." These three workshops are intended for fish farmers, biologists, and engineers with some prior fin-fish culture experience. An AES General Membership Meeting is scheduled at 5:00 PM, Tuesday, in the Pacific Salon 3 room immediately following the end of the last AES Workshop. Also, the AES has organized a session of contributed aquacultural engineering papers, which is scheduled for Wednesday, January 30.

AES Workshop: Production System Designs for 50 Ton per Year Farms or Modules

- 8:30 Unit processes required in recirculating aquaculture systems
Sean Wilton, PRAqua Technologies, Nanaimo, British Columbia, Canada
- 9:00 Design of a 50 Ton/yr Atlantic salmon smolt system
Sean Wilton, PRAqua Technologies, Nanaimo, British Columbia, Canada
- 9:30 Design of a 50 Ton/yr tilapia system
Glenn Snapp & Terry McCarthy, Water Management Technologies, Baton Rouge, LA USA
- 10:30 Design of a 50 Ton/yr hybrid striped bass system
Josh N. Goldman, Fins Technology, Turners Falls, MA USA

AES Workshop: Effluent Wastewater Treatment

- 11:00 Current knowledge base for wastewater effluent management
Shulin Chen & Michael B. Timmons, Washington State University, Pullman, WA
& Cornell University, Ithaca, NY USA
- 11:10 Phragmites reed beds for effluent treatment
John Reid, Bioshelters, Inc., Amherst, MA USA
- 11:30 Wetlands for effluent treatment
Mike Massingill, Kent SeaTech Corporation, San Diego, CA USA
- 11:50 Denitrification of recirculating system wastewater effluent
Brian Brazil, USDA-ARS National Cold & Cool Water Aquaculture Center
Leetown, WV USA

AES Workshop: Design of Intensive Shrimp Systems

- 1:15 Modeling algal & bacterial driven shrimp production systems
David Brune, Depart. Agricultural Engineering, Clemson University
- 2:00 Intensive Marine zero exchange shrimp systems
John Ogle and Jeff Lotz, Gulf Coast Research Lab,
University Southern Mississippi, Ocean Springs, MS USA
- 2:30 Break
- 3:00 Super intensive zero exchange shrimp systems
Rod McNeil, Meridian Aquatic Technology, LLC
Calverton, Maryland & Polson, MT USA
- 3:45 Review of intensive shrimp production systems at University of Arizona
Don Lightner (not confirmed), University of Arizona, Tuscon, AZ USA
- 4:30 Aquacultural Engineering Society Member Meeting**
Open to all who are interested, engineers & **non-engineers** are equally welcome!

World Aquaculture 2002

The World Aquaculture Society and the China Society of Fisheries are planning *World Aquaculture 2002 International Conference and Exposition* to be held at the Beijing Convention Center in Beijing, China, from April 23-27, 2002. The AES is an associate sponsor of this international conference and Dr. Shulin Chen (chens@mail.wsu.edu) and Dr. Song-Ming Shu are coordinating our involvement. For more information on the overall program and tradeshow at *World Aquaculture 2002*, please contact John Cooksey, WAS Director of Conferences (phone: +1 760-432-4270; fax: +1 760-432-4275; e-mail: worldaqua@aol.com), or visit the World Aquaculture Society's website at: <http://www.was.org>.

4th International Conference on Recirculating Aquaculture

You are invited to participate in the *Fourth International Conference on Recirculating Aquaculture*, to be held at the Hotel Roanoke and Conference Center (www.hotelroanoke.com) Virginia, on July 18-21, 2002. The conference is designed for individuals in industry, government, or academia who are involved with recirculating aquaculture. This conference continues to feature the leading experts in recirculating aquaculture who will be presenting over 75 papers in 2002, as well as poster sessions. Ample time is allotted during all sessions for questions and free discussions. The 1500+ participants from the U.S. and 30 foreign countries that have attended the past three conferences indicated that some of the most popular aspects were the trade show, plenary session, and continuous break service forum. Equipment manufacturers and salespersons, producers, academics, regulators, investors, and others interested in the recirculating aquaculture field all gather in the trade show area to "meet and greet" and "cuss and discuss" pressing issues associated with recirculating aquaculture. The 2002 conference continues to accent informal learning opportunities with expanded trade show hours and a reception following the plenary session on Thursday night.

For further information about the conference and symposia, please contact Dr. George Flick, Virginia Tech, Mail Code 0418, Blacksburg, Virginia 24061, telephone: (540) 231-6965, or e-mail your questions to: aqua@vt.edu.

CALL FOR PAPERS AND INSTRUCTIONS FOR ABSTRACT SUBMISSION

Fourth International Conference on Recirculating Aquaculture Systems

Roanoke, Virginia July 18-21, 2002

Virginia Polytechnic Institute & State University (Virginia Tech) and the Aquaculture Engineering Society (AES) are calling for technical papers to be submitted to Editors George J. Flick or Michael B. Timmons (AES). Authors must submit a short abstract to Dr. George J. Flick (Virginia Tech) for review and consideration. Abstracts must be received by February 1, 2002. Authors of accepted abstracts will be notified by February 15th and will receive detailed instructions for submission of full papers. Final manuscripts must be submitted to George J. Flick and received by April 1, 2002 in "camera ready" format. Proceedings will be available at the conference.

ABSTRACT GUIDELINES

1. Abstracts should be concise and limited to one typewritten page.
2. Use single spacing, 12 pt font, and allow 2.5 cm for left and right margins.
3. Titles should also be concise but clearly relate the subject of the article.
4. Include the name(s) of the author(s) and their affiliation(s) and address(es).
5. Submit your abstract to Dr. Flick at the address listed below by February 1, 2002.
6. Submit the abstract either by e-mail, or by mail on a 3.5" disk.* If using e-mail for your submission, paste the abstract into the body of the e-mail message; do not send as an attachment. If mailing a disk, please label it with your name and the title of your submission and include a hard copy of the abstract. Please ensure that your file is virus-free.

If your abstract is accepted, you will be asked to submit a revised abstract with your paper (by April 1, 2002) for publication in the conference proceedings. Conference sessions will be organized based upon submissions accepted.

Mailing and e-mail address for abstracts:

Dr. George J. Flick
4th Int. Conference on Recirculating Aquaculture
Department of Food Science & Technology (0418)
Virginia Polytechnic Institute and State University
Blacksburg, VA 24061
e-mail: aqua@vt.edu

*e-mail format is preferred for submission of abstracts.

AES Sponsors

The AES is looking for sponsors within the aquaculture industry to support the cost of producing the AES News. The sponsors listed below have donated generously to support the AES in 2001. For this donation, the AES will be inserting a one-page product literature sheet in one of the newsletter mailings, and list the vendor as an AES supporter in four consecutive newsletters. Please contact one of the AES News Co-Editors if you would like to be a sponsor.

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web site: www.marinebiotech.com

**For more information on the AES, visit the AES web page at:
<http://www.aesweb.org>**

To join the AES, please fill out the following information and send with payment to: Brian Vinci, c/o Freshwater Institute, P. O. Box 1889, Shepherdstown, WV, 25443, USA (fax: 304-870-2208). Make cheques payable to the Aquacultural Engineering Society. You do not have to provide education information to become a member.

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