

AQUACULTURE RESEARCH INSTITUTE

Fulbright Visiting Scholar to conduct research at the University of Idaho

Submitted by Dr. Francis Nuestro Baleta

Dr. Francis Nuestro Baleta joined Dr. Cain's laboratory as a visiting senior scholar under the Fulbright-Philippine Agriculture Scholarship Program. He is a Professor from the Isabela State University (ISU), Philippines. Dr. Baleta received his PhD in 2012 at the University of the Philippines with emphasis in aquaculture and fish health management. Francis's research focus is on the use of seaweed extracts to naturally boost the immune response and benefit finfish and crustacean aquaculture. He has received research grants from the Philippine Department of Agriculture-Bureau of Agricultural Research and the Department of Science and Technology-Philippine Council on Agriculture, Aquatic and Natural Resources Research and Development for aquatic health management to study the use of seaweeds as immunostimulants for aquaculture.

In the past, Dr. Baleta spent time as a visiting research fellow at the National Taiwan Ocean University in Keelung, Taiwan (as Commission on Higher Education Scholar) and at the University of Rhode Island, Kingston, RI (as a Fulbright Scholar) where he conducted immunological studies on Pacific white shrimp and summer flounder.

Dr. Baleta has held a number of leadership positions in his career, including Campus Administrator of



ISU Palanan Campus, the Associate Dean/ Director of the Institute of Fisheries, ISU Echague Campus and University Coordinator of the Philippine Science Consortium. He is also a senior accreditor of the Accrediting Agency of Chartered

Colleges and Universities in the Philippines where he accredits/evaluates curricular offering from the various universities in the Philippines.

As part of his Fulbright scholarship at the University of Idaho, Francis will design and conduct experiments to determine the effects of administering extracts of specific seaweeds (Sargassum) collected from the Philippines to the diets of rainbow trout. He will characterize changes in immune response and disease susceptibility, and determine how such immunostimulants alter expression of important genes in rainbow trout. Based on his previous work, such extracts could serve as important immunomodulators and provide benefit to aquaculture producers if they can be effectively delivered to fish via the feed or water.

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2017 Idaho Coldwater Fish Culture Course

July 10th-14th, 2017
University of Idaho
Hagerman Fish Culture Experiment Station

Submitted by Dr. Brian Small

This July, the Aquaculture Research Institute, University of Idaho, will offer an intense five-day course for young fisheries professionals on applied salmonid culture methods. In 2011, a similar course was offered over two weeks with one week taught at the Moscow campus and the second week taught at the College of Southern Idaho in Twin Falls. This year, the course will be taught entirely at the Hagerman Fish Culture Experiment Station in southern Idaho.



Participants of Week One of the Coldwater Fish Course, 2011 in Moscow, Idaho

An updated syllabus has been developed by the instructors. Brian Small (UI) will begin the week with an overview of fish anatomy and physiology. This and all daily lectures will be followed by practical hands-on activities. Matt Powell (UI) will then provide an overview of salmonid reproduction and genetics, Jessie Trushenski (IDFG) will discuss nutrition and feeding practices, Ken Cain (UI) and Laura Sprague (IDFG) will present on fish health management and biosecurity, and Joe Chapman (IDFG) and Gary Fornshell (UI) will instruct participants on proper record keeping, essential hatchery calculations, discharge permits, transport and more. Gary Fornshell is the Aquaculture Education Extension Specialist for Idaho and will be adding his practical knowledge throughout the week, including leading a tour of private and public aquaculture facilities in the Hagerman area.



Taking samples

Registration information for the course will be available after April 1, 2017. The course fee will be \$390.00 and will include daily lunches, transportation during the farm tours, and a copy of the course materials. Enrollment will be limited to 30 students. Priority will be given to IDFG employees and limited space will be available on a "first come, first served basis" to young professionals working with salmonids in culture facilities at tribal, federal, and private entities. To reiterate, the focus on cold water aquaculture will include fish anatomy and physiology, fish health, reproduction, biosecurity, genetics, nutrition and feeding practices, record keeping and practical hands-on experience. The course will be a great opportunity for students to refresh their knowledge of aquaculture techniques and learn new methods and technologies.



ISTEM Hosts Native American Tribal College Summit

Submitted by Dr. Ron Hardy and Dr. Marcos "Ed" Galindo

The Indigenous Program for STEM Research and a Regional Native Network of Graduate Education (ISTEM) hosted a meeting of representatives of Tribal Colleges in the region at the University of Idaho September 15-16, 2016. The meeting had two goals: 1) present the ISTEM program and accomplishments to attendees; and 2) discuss Tribal College needs and their potential to identify candidates for ISTEM recruitment. The meeting provided an opportunity to highlight a number of University of Idaho programs designed to recruit and retain Native American students, both at the undergraduate and graduate levels. Productive discussions among participants identified some barriers facing Native American students, many of whom are non-traditional students with families and community commitments that increase the challenges facing students in higher education.



Aquaculture Research Institute

The ARI newsletter will be published semi-annually and available online in Adobe Acrobat format through www.uidaho.edu/aquaculture. If you would like to be notified via email when the latest edition is available on our web page, please notify the editor at aqua@uidaho.edu.

We would be happy to include appropriate contributions from those of you working in the field. Feedback and suggestions on how to improve this newsletter would also be appreciated.

This issue of the newsletter highlights various projects being conducted on the Moscow campus, the Hagerman Fish Culture Experiment Station and includes various extension activities.

The Aquaculture Research Institute Newsletter provides information about aquaculture-related activities at the University of Idaho. Articles in this newsletter may be reproduced without permission, provided they are properly cited. Please feel free to submit comments or material you would like us to consider for publication to:

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National Aquaculture Extension Conference

June 5-9, 2017 | Boise, Idaho

Submitted by Extension Professor Gary Fornshell

The National Aquaculture Extension Conference will be held in Boise, Idaho, June 5-9, 2017.

The conference is co-sponsored by the USDA National Institute of Food and Agriculture's (NIFA) five Regional Aquaculture Centers and the NOAA National Sea Grant Program. Held approximately every five years since 1992, this unique conference provides a forum for professional development and growth for all levels of experience and years of service in aquaculture extension education.

The US is a leader in aquaculture research and development. It is critical that new discoveries and knowledge reach potential beneficiaries as quickly as possible. Effective networking of extension professionals, with a common vision of benefiting private sector development, is an important element for continued and future success. Networking can be initiated by extension professionals in partnership with others in research and development. Today's issues and challenges require new, improved ways to move industry forward and educate the public. Growing interest in vocational education with aquaculture as a component has led to establishment of numerous programs across the U.S.

This conference offers participants new contacts, knowledge about new topics, information about new tools to enhance productivity, appreciation of experience and perspectives on issues, a chance to replicate model programs, gain in expanding professional networks, opportunities to contribute to the development of others, insights into participating in regional and national initiatives and growth in skills development relevant to responsibilities. The conference provides a forum for professionals from the Sea Grant Marine Advisory Service, the Cooperative Extension Service, and other outreach programs to seek collaboration for mutual benefit to the aquaculture industry and the public.

Additionally, there will be a planned bus tour of the Idaho aquaculture industry, which may include trout and tilapia farms, sturgeon farms, ornamental fish farms, and the University of Idaho Fish Culture Experiment Station in Hagerman, Idaho. This bus tour will be held during the 2nd day of the conference (Wednesday, June 7th) and bookended by Day 1 (June 6th) and Day 3 (June 8th) of the conference so all will be able to participate. The Idaho aquaculture industry is located in the "Magic Valley" of the Snake River with its beautiful scenery and flowing artesian springs upon which much the Idaho trout

industry depend. This will be a great tour if you have never visited the area. The tour is an extra \$25 per person. Guests are welcome.

Conference registration is \$100 and includes an opening night reception, three continental breakfasts, two lunches, and one dinner. A block of rooms is available at our host location, The Riverside Hotel. Located on the banks of the Boise River, there is ample opportunity for recreation, even within walking distance of the hotel. Please note that the abstract submission deadline for oral presentations and posters is April 15, 2017.

To register go to:
www.regonline.com/NAEC2017

For more information, you can contact the conference co-Chairs listed below:

Forrest Wynne, fwynne@uky.edu

Gary Fornshell, gafornsh@uidaho.edu

Registration inquiries can be sent to Kristy Mayer, kristym@uidaho.edu

We hope to see you in Idaho in June!

UI Professors Recognized for National and International Research Contributions

University of Idaho researchers **Sanford Eigenbrode** and **Ron Hardy** have been awarded the Jean'ne M. Shreeve NSF EPSCoR Research Excellence Award for their internationally recognized research that benefits the people and state of Idaho.

Idaho's National Science Foundation Experimental Program to Stimulate Competitive Research, known as Idaho EPSCoR, selects researchers from UI, Boise State University or Idaho State University each year to receive this prestigious award, which is named for longtime UI chemist and former Idaho EPSCoR director Jean'ne Shreeve.



The award winners for 2016 is **Dr. Ronald W. Hardy**, the director of UI's Aquaculture Research Institute (ARI). Over 20 years at UI, Hardy has studied sustainable fish nutrition, published 83 peer-reviewed papers and earned recognition as one of the world's top scholars in his field. Under Hardy, ARI's partnership with the federal Agricultural Research Service has received more than \$20 million in funding and leads the world in sustainable fish feeding research. Hardy led the transformation of the Hagerman Fish Culture Experiment Station from a small laboratory to a massive multi-building research complex. It now employs 35 people, as well as visiting researchers and students.



The other award winner is **Dr. Sanford Eigenbrode**, a University Distinguished Professor of entomology in the UI College of Agriculture and Life Sciences. He came to UI in 1995 to study insect ecology. He received a three-year Idaho EPSCoR grant to examine the ecological role of glucosinolates as plant defenses in 1996, and has since worked on competitively funded research projects totaling \$28 million.

University of Idaho

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UPCOMING
EVENTS

JUNE 5-9, 2017

National Aquaculture Extension Conference

Boise, Idaho

JUNE 26-JUNE 30, 2017

World Aquaculture 2017

Capetown, South Africa

Theme: Sustainable Aquaculture, A New Frontier for
Economic Growth

www.was.org

JULY 10-14, 2017

Coldwater Fish Culture Course

Hagerman Fish Culture Experiment Station
Hagerman, Idaho

OCTOBER 2-4, 2017

9th International Conference on Fisheries and Aquaculture

Toronto, Canada

Theme: New Era on Fisheries and Aquaculture