



AFS E-Newsletter

Issue No. 15 • December 2012



FROM THE EDITOR

I wish all the members and readers a Very Happy, Healthy and Productive 2013.

The year 2012 ended on a very sad note with the sudden and untimely death of Dr. M.C. Nandeesh, President of the Indian Branch and Councilor of AFS. Till the time of his death, he was also Chair of Aquaculture without Frontiers (AwF), Member of Oversight Committee of Best Aquaculture Practices of the Global Aquaculture Alliance (GAA) and Team Member of Global Initiative for Life and Leadership through Aquaculture (GILLS). He was the mastermind behind the Silver Jubilee Celebration of Indian Branch held in December 2012. In one of the mails just before his hospitalization he indicated that probably he is the only Indian to participate in all 9 triennial fora of AFS. It is a great loss to the fisheries sector. An obituary and tribute to him is in this issue.

The Indian Branch celebrated its Silver Jubilee by organizing a global conference on "*Aquatic Resources for Eradicating Hunger and Malnutrition – Opportunities and Challenges*" in Mangalore, India during 3 to 6 December 2012. In this connection, the Branch has brought out a special publication with articles by specialists from various parts of the world on various issues that constrain the use of aquatic resources for alleviating malnutrition. A special publication entitled "Fish Deep, Think Deeper" has been brought out that gives the history of the Branch in the last 25 years. Hopefully, the Indian Branch will put these publications on its website for information of all. A detailed report with recommendations from the Conference is included in this issue.

Gender in Fisheries and Aquaculture is one of the areas where AFS is taking the lead and bringing to national, regional and global attention the contribution of women to the sector and the scant importance the gender issues receive. Dr. Meryl Williams has provided a review of the activities that have taken place during 2012 and the increasing number of visitors to the website (Genderaquafish.org) indicates the importance this subject is receiving. Looks like 2013 is going to be an exciting year with preparations going well for GAF4 being organized along with 10AFAF in April 2013.

2013 might see the first genetically engineered (GE) animal, the Atlantic salmon being considered for approval for dissemination. US-FDA's preliminary finding is that an approval of the application for dissemination of AquaAdvantage Salmon produced by AquaBounty Technologies of USA, under the specific conditions proposed in the application would not have a significant impact (FONSI) on the US environment. FDA is seeking comments from the public on its draft environmental assessment.

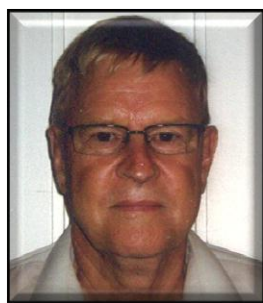
2013 is going to be a busy year with scheduled 10th Asian Fisheries and Aquaculture Forum (10AFAF), 4th International Symposium on Cage Aquaculture in Asia (CAA4) and 4th Global Symposium on Gender in Aquaculture and Fisheries (GAF4) scheduled for April 30 to May 4 in Yeosu, Korea.

Young Scientists, who are interested in applying for AFS-Kanajawa Research Fellowship, please note that the last date for submission of application is 31 January 2013.

I once again invite all the members, Councilors and Branches to share information on their work and issues through the newsletter.

M.V. Gupta

President's Message



As we move into the New Year (at least the western New Year), it is time to reflect on 2012. This was a year of ups and downs for AFS. The worst part was the news that one of our Councilors, Dr Nandeesh, passed away in December after suffering a massive heart attack. He was one of our most active Councilors and served the AFS well, both in terms of his progressive ideas on how to improve the Society and through his tireless effort in the AFS Indian Branch. He will be missed by us all. AFS has worked with the World Aquaculture Society (WAS) and others to set up a "Nandeesh Medical Assistance Fund" to help the family in this time of need. We encourage all Members to make a donation through the WAS website www.was.org.

The highlight of the year was the Indian Branch Silver Jubilee, marked by a "Global Symposium on Aquatic Resources for Eradicating Hunger and Malnutrition – Opportunities and Challenges" in Mangalore, India. This was an excellent symposium with many interesting key note and other presentations, highlighting the importance of fisheries and aquaculture in the fight against hunger and malnutrition. One of the main messages was the importance of a healthy diet and nutrition in a child's first 1000 days of life, including the time in the womb, and the contribution that fish can make in improving nutrition, especially for the World's poorer inhabitants. It was sad that Dr Nandeesh, who was a central figure in organising the event, could not attend. However, for many of us there, he was present in spirit.

2013 is the year of the 10th Asian Fisheries and Aquaculture Forum (10AFAF). The forum is the flagship of the Society activities and a time for Members and others to get together to review trends in Asian fisheries and aquaculture and learn about new research findings supporting their sustainable development. To encourage others to join us, I ask all Members to register early so that the event gathers early momentum. Details of 10AFAF, as well as online abstract submission and registration are available on www.koference.org.

You will recall that my main goal during 2011-12 was to make the Society more relevant and useful to its members, especially its younger members – the scientists of tomorrow. Activities to achieve this included (i) make AFS more accessible through social media, (ii) updating the web site to make it more functional, (iii) revitalising the e-newsletter, (iv) making AFS information more accessible, and (v) launching a membership campaign.

Progress on these activities has been steady, but slow. The old AFS webpage was linked to Facebook and has received a significant number of “likes”. The web site has been re-designed and developed to include online publication functionality and an online membership subscription paying functionality. This will be launched very shortly. The June 2012 newsletter was the best ever, with interesting reports and great presentation. Hopefully that standard can be maintained in the future. The AFS Journal – *Asian Journal of Fisheries Science* – is now available to all, not just AFS Members. It is hoped that this increased exposure of the Journal will encourage more Asian scientists to use the Journal as a vehicle to publish their research findings. We have been waiting for the web site upgrade to be finished before launching a membership campaign. That can now happen soon. We will be contacting past members to encourage them to rejoin as paid Members as also advertising the AFS as widely as possible. Branches and Sections are also actively recruiting new members.

Wishing you all a successful and prosperous 2013....

Derek Staples

President, AFS



Dr. M. C. Nandeesh: Obituary

Dr. M.C. Nandeesh, Chairman of Asian Fisheries Society Indian Branch and AFS Council Member, passed away on 27th December, 2012 after a massive heart attack and a month long struggle for life in the hospital. He was an extraordinary man with a vision and a mission.

Nandeesh was born on 1st July, 1957 at Mudanakude village, Karnataka in a rural farming family. After spending his early education in the village, he did his under-graduate and graduate studies at the College of Fisheries, Mangalore and earned his Masters in Fisheries in 1982 and Ph.D from Visva-Bharati University, India in 1992. After working in the Agriculture College, Dharwad, and College of Fisheries, Mangalore, he joined as Fisheries Adviser to PADEK in Cambodia in 1992 and continued till 1997. From Cambodia, he moved to Bangladesh in 1998 as Research and Dissemination Adviser to LIFE project and subsequently as Project Coordinator of GOLDA project of CARE in Bangladesh till 2000. In 2001, he joined the College of Fisheries, Central Agricultural University, Tripura as Professor of Aquaculture. In 2010 he became Dean, Fisheries College and Research Institute at Tuticorin, Tamil Nadu and subsequently in March 2012 as Special Officer of the newly formed Tamil Nadu Fisheries University, Nagapattinam. During his tenure as Dean, he initiated international partnership research programmes with three Universities in USA, two in Europe and three in Asia. The Expert Consultation on Fisheries Education in India he organised in 2011 resulted in identifying the challenges facing fisheries education in the country and developed a detailed plan. During November, 2012 he was selected as the first Vice Chancellor of this newly formed University, a position which he could not take up as he was hospitalized and did not recover.

During his career spanning over twenty nine years, his contributions as a development researcher and innovative aquaculture development worker earned him much appreciation and reputation. He served two terms as Secretary of the Indian Branch of the Asian Fisheries Society, worked in various capacities for the FAO, CARITAS, JICA, World Bank, NACA, CARE, IDRC, PADEK, NOVIB, and CIDSE in many south east Asian countries. At the time of his untimely death, he was serving as Chairman of the Indian Branch of Asian Fisheries Society, Council Member of AFS, and Team Member of Global Initiative for Life and Leadership through Aquaculture (GILLS), Chair of Aquaculture without Frontiers, and Member of Oversight Committee of Best Aquaculture Practices of the Global Aquaculture Alliance.

Those who knew him closely only could understand his extraordinary outlook and commitment. He was an extraordinary person who could think beyond, dream big and motivate people. He was a human dynamo, burning himself for the cause of grass root level fisheries development. There could be many researchers and development workers, but there will not be another Nandeesh. The fisheries and aquaculture sector lost an extraordinary person. His life and thoughts will continue to inspire all of us.

Dr.Nandeesh is survived by his wife Dr. Rajeswari Dayal who was his back office, shouldering all his professional office work, documentation and management and a son Aditya who is just ten years old.

Text and Photo by Prof. Mohan Joseph Modayil

ACTIVITIES OF AFS INDIAN BRANCH

Two e-newsletters were published by the Indian branch in July and October 2012 giving highlights of the activities of the Indian branch.

A website for the branch (www.afsib.in) was commissioned and adequate coverage of the past and ongoing activities has been ensured.

Membership campaign was organized and over 100 new members were added to the AFS.

A Student Members' International Travel Fund was created with a corpus of INR 1,000, 000 (about US\$ 20,000) for supporting travel of research students to attend and present papers in the triennial AFS fora held in different countries.

Indian Branch celebrates its Silver Jubilee:

To commemorate the Silver Jubilee of the Indian Branch, a Global symposium on “*Aquatic Resources for Eradicating Hunger and Malnutrition: Opportunities and Challenges*” was held in Mangalore from 3rd to 6th December, 2012. The symposium was inaugurated by Prof H P C Shetty; founder Chairman and former Director of Instruction, College of Fisheries, Mangalore on 3rd December 2012. Over 300 scientists, administrators, planners, entrepreneurs and farmers participated in the symposium, including 32 International delegates. The dignitaries that attended include: Dr. Derek Staples, AFS President, Dr. Kevan Main, WAS President, Dr. Jia Jansen of FAO, Dr. Meryl J. Williams, Dr. M.V. Gupta, Dr. A.E. Eknath, Prof. Mohan Joseph Modayil, Dr. P.S.B.R. James, Dr. S.D. Tripathi, Prof. Mohan Joseph, Dr. Roy Palmer, Dr. P. Jayshankar, Dr. A.P. Sharma, Dr. Krishna Srinath, Dr. C.V. Mohan, Dr. Y.S. Yadava, Dr. Dr. P. Das, Dr. Pathak, Dr. V.V. Sugunan, etc.

The symposium was organized in seven sessions and 54 papers were presented by leading experts from all over the world. In addition, there was a separate poster session in which 218 posters were displayed under different themes.

Prior to inauguration of symposium a panel discussion on Infrastructure requirement for fisheries sector was held by group of eminent personalities. Suggestions were made by Dr C Renuka Prasad, Vice-Chancellor, Karnataka Veterinary, Animal and Fisheries Sciences University, Prof Mohan Joseph Modayil, former Chairman of AFSIB, Sri Arvind Jannu IAS, Principal Secretary to Government of Karnataka, Dr. M.V. Gupta, World Food Prize Laureate and Professor PSBR James, Former Director, CMFRI. This was followed by a presentation by Prof Mohan Joseph Modayil on the activities of AFSIB for the past 25 years.

Recommendations of the Global Symposium

After elaborate deliberations, the delegates felt it imperative to have a holistic approach to promote aquatic products to alleviate hunger and malnutrition and recommended the following measures.

1. The fisheries and aquaculture planning should be integrated into the national poverty reduction plans and programs.

2. The campaigns to raise awareness of the importance of fish for human nutrition and health should be effectively formulated/strengthened through investments by both public and public/private partnerships, using FAO/WHO guidelines.
3. Technology development for the production of small, under-utilized nutrient rich fishes and efforts to utilize the low-value protein rich fish being diverted for fish meal etc., should be initiated to overcome malnutrition among the poor communities.
4. A national innovative approach should be adopted towards integration across whole food and value chain with a focus on food safety and fish/aquatic product quality through development of essential infrastructure, ensuring that the food quality exceeds market standards and expectations.
5. Policy and extension to promote best practices in integrated farming systems should be adopted taking into consideration the good examples/case studies of rice-fish and livestock systems in Cambodia.
6. Financial mechanisms should ensure that research is better aligned with needs of stakeholders, including the private sector and research for utilization of fish and fish products for improving human health and nutrition.
7. Reforms in the academic system to build skills and competencies should be speeded up along with improvement in infrastructure facilities.
8. Mechanisms to ensure the efficiency and improvement of adaptive learning should be promoted, like for example NACA mechanism in Aquaculture.
9. Data is an essential part of any developmental plans and hence, robust data on inland and marine fisheries and aquaculture, water bodies, relevant nutritional information should be collected/improved through systematic reporting at all levels using Thailand model as a bench mark.
10. Affirmative action should be initiated to reduce gender inequity across the food and value chain in all sectors of fisheries and aquaculture.
11. Governance and policy issues should be reformed enabling access rights to users and stakeholders for sustainable harvesting.
12. Government development programs should be ensured to include the nutritional information on essential fish/fish products.
13. Better co-management of the resources that support the sustainable livelihoods of coastal and inland communities should be evolved and implemented.
14. Appropriate policies towards a holistic approach in aquaculture, capture fisheries, community livelihoods and commercial interests should be promoted with due consideration to impact of climate change. Application of remote sensing to map land use patterns and devise plans should be expedited.



Inauguration of the global
symposium on 3 December 2012



Section of audience at the global symposium



Panel discussion on Infrastructure needs in fisheries sector



Plenary session of the symposium

Note from President of GILLS (Global Initiative on Life and Leadership for Seafood)

At the International Seafood & Health Conference held in Melbourne in November 2010, the delegates discussed what would help us take the initiative further. One of the items discussed was an international website that would enable all researchers and those interested to share information. This resulted in the formation of GILLS (The Global Initiative for Life & Leadership for Seafood). The strategy is detailed at the website www.gillseafood.com. Any University can join GILLS and get involved in our work. In addition to the website we have a LinkedIn GILLS Group, a G I L L S Facebook page and a Twitter @2perweek.

GILLS Chairman, Roy Palmer, said "GILLS was very pleased to be able to be part of the special occasion for AFSIB Silver Jubilee Celebrations and congratulate the whole team for the effort put in and for the hospitality. Events like this are important but we need to ensure that we are moving forward and making a difference and not just talking and running on the spot. Our way around this is definitely by engaging with the community and getting more momentum that way. However whatever the issue we need to do this GLOBALLY and the GILLS Global Platform on Seafood and Health stands ready to work with one and all on this important subject. Seafood nutrition has the answers to so many health questions posed today, and the savings for public health, if everyone was consuming seafood at the rate it is scientifically approved, are enormous. Added to that the absolute fact there is no better environmentally sustainable protein source, which actually gives so much more than protein, means we are a force to be reckoned with. Just when we break through will depend on our own attitudes, passion and desire."

GILLS is currently working with the 1000 Days program, the Mother & Child Foundation and Aquaculture without Frontiers to bring a whole chain approach to improving the health and well being of future generations - want to be involved? Contact Roy Palmer at roydpalmer@gmail.com

Centennial Celebration of Shanghai Ocean University

Shanghai Ocean University (SHOU), set up in 1912, held it's Centennial Celebration on 3rd November 2012 and was attended by more than 12,000 people including senior officials from education and science, leaders of Shanghai, Presidents of Universities, alumni, students and staff of the University. This was the major gathering after 9th Asian Fisheries and Aquaculture Forum (9AFAP) held in April, 2011 in SHOU. Many high level conferences such as 11th Asia Maritime and Universities Forum, 3rd Cross Strait Ocean and Maritime University Presidents' Forum and Chinese Academy of Engineers Academician Forum, etc., were held. About 480 participants from more than 100 institutions from 12 countries joined the conference and 80 oral reports were presented.

Conference on “Reduction of Negative Impacts on Fisheries Resources in Southeast Asia” held at Iloilo City, Philippines

The final seminar on “*Reduction of Negative Impacts on Fisheries Resources in Southeast Asia*” was held on November 24, 2012 at Iloilo Grand Hotel. The conference was the culmination of collaboration between the University of the Philippines Visayas and Kagoshima Faculty of Fisheries, Kagoshima University under the Japan Society for Science Core University Program (JSPS-CUP) that began in 2008. The country coordinator for the Philippines was Dr. Resurreccion B. Sadaba from the University of the Philippines Visayas while the Japanese country coordinator was Prof. Jiro Koyama from the Faculty of Fisheries, Kagoshima University.

The conference reported on studies on effects and treatments of the negative impacts for coasts, specifically, UPV's involvement through the Oil Spill Response Program. For the last five years, there has been a very fruitful active research collaboration between partners involving the following areas: Chemical monitoring of oil pollution in Guimaras coastal area; Recovery from oil pollution in Guimaras using bioremediation technique; Studies of the effects on fisheries and aquaculture by oil pollution and other negative impacts and Studies of the effects on local society by oil pollution and other negative impacts.

A total of almost 100 participants attended the conference coming from various local agencies and universities. Overseas participants came from Tokyo University of Marine Science and Technology, Japan Fisheries Research Agency, Kagoshima University Faculty of Fisheries, Kesatsart University, Kyoto University, RIHN, The University of Tokyo and Tokai University.

The seminar opened with a message from Dr. Rommel Espinosa, Chancellor UP Visayas while Prof. Matsuoka, Dean of Kagoshima Faculty of Fisheries gave the closing message. A total of 16 papers were presented orally while 27 papers were presented as posters. The conference had fruitful discussions for an improved understanding of the negative impacts on fisheries for better management of critical coastal resources in Southeast Asia, particularly on the effects of oil spills. There was also a discussion on the next collaboration between partner institutions.

Papers presented orally were the following: Nitroarenes: their presence, accumulation and genotoxicity; Remediation of polluted tropical and subtropical marine coastal environments: - Outline of the bioremediation subgroup activities in the Asian Core Project ; Marine biomass project in tropical and subtropical area; Current Situation of development through tourism in the Philippines: Case Study on Guimaras Island and Boracay Island; Current Situation of Community Based Marine Fish Culture in the Philippines: A Case Study on Guimaras Island; Current Status of Fish Aggregating Devices (FADs) and their Utilization in Panay, Philippines; Chemical Monitoring of Oil Pollution in Southeastern Guimaras (2006 – 2011); Monitoring of Impacts, Responses, and Recovery of Mangrove within Taklong Island National Marine Reserve, Nueva Valencia, Guimaras, (Year 5) Philippines; An assessment of the long-term effects of the oil spill event on the CPUE of bottom set long line in southern Guimaras, Philippines; Spatio-temporal comparisons on the effects of the Solar 1 oil spill on the intertidal macrobenthic assemblages of the Taklong Island National Marine Reserve, southern Guimaras, Philippines; Reproductive performance of *Siganus guttatus* (Bloch) exposed to dispersed bunker oil; Chemical and Toxicological Assessment of Sediments Collected from TINMAR Area 4 Years After the M/T Solar I Oil Spill; Coastal seagrass meadow structural changes over five years following a bunker oil spill in Guimaras, Philippines; Evaluation of the catch composition and size structure of small-scale purse seine in the Philippines; Negative Impacts of Chemical Pollutants to Population

Dynamics of Marine Fishery Resources: A Review and Analysis of Philippine Situation; Challenge and Actions by Tokyo University of Marine Sci. &Tech. after JSPS Core University Program on Fisheries Science.

Contributed by: UP Visayas Faculty, Philippines

Year 2012 in Review for Gender in Aquaculture and Fisheries

Women's and men's contributions are both critical to the success of aquaculture and fisheries. Statistics on the growing interest being shown in the AFS Gender in Aquaculture and Fisheries website, <http://genderaquafish.org/> since its creation over two years ago (in September 2010) indicate that more people are taking an interest in research and development insights on gender in aquaculture and fisheries.



Figure indicates the number of hits the website received from different countries with deeper the color, the more hits

In 2012, the number of user visits to our website, Genderaquafish.org, grew from nearly nine thousand in 2011 to almost 15 thousand – a growth of 67%. Most pleasingly, the users came from all over the planet. To be precise, visitors came from 154 countries and territories. Our top 5 countries, in order of hits, were: India, USA, Philippines, UK and Malaysia, with Asia the top region (find your country/territory in the detailed statistical download: [2013-01-01 Months and Years](#)).

Table of Visits by User Country/Territory (from 25 February to 31 December 2012)

Region	No. Countries/Territories	No. Visits	Percent Total
Asia	26	6,253	49
Africa	39	1,442	11
Europe	43	1,986	16
Middle East	11	300	2
North America	2	2,040	16
Oceania	10	437	3
South and Central America and Caribbean	23	278	2
TOTAL	154	12,736	100

One of the reasons for the increased visitor traffic has been the new research and policy material uploaded (thanks to many active participants who have provided much of the material) and an active year of gender in aquaculture and fisheries (GAF) events that were reported earlier.

We finished the year on a sad note, however, when we lost Dr. M.C. Nandeesha, the person who inspired the whole AFS effort on women/gender in fisheries and aquaculture. We are preparing a tribute to Dr. Nandeesha to describe his roles in getting us started and helping keep the momentum. We hope that the future progress of our efforts will do him proud.

Here are links reports from some of the featured 2012 GAF events and milestones:

(a) Digital copy of **AFS Indian Branch 1990 Women in Fisheries Workshop** <http://genderaquafish.org/2012/07/04/special-release-proceedings-of-the-1990-india-women-in-fisheries-workshop/> (we have 3 more 'historical' docs from the 90s in train at present – watch for them this year)

(b) **GAF3 Special Issue of Asian Fisheries Science journal** published <http://genderaquafish.org/2012/08/18/moving-the-agenda-forward/>

(c) Report of the **2011 FAO Special Workshop on GAF** published <http://genderaquafish.org/events/fao-special-workshop-2011/>

(d) Chapter on **women in aquaculture in the 2010 FAO Global Conference on Aquaculture proceedings** released: (<http://genderaquafish.org/2012/05/24/enhancing-global-aquaculture-opportunities-for-women/>)

(e) Report of the **February 2012** meeting of the ASEM Aquaculture Platform gender element (WP7) <http://genderaquafish.org/2012/04/20/malaysian-workshop-upgrades-knowledge-develops-plans-for-gender-equity-in-asian-aquaculture/>

(f) Report of the **June 2012** meeting of the **Mekong Network in Gender in Fisheries** (their 13th Annual Meeting) – see report: <http://genderaquafish.org/2012/06/30/in-for-the-long-haul/>

(g) Report of the **July 2012 IIFET Gender in Fish Value Chains sessions** <http://genderaquafish.org/2012/11/29/overcoming-gender-inequalities-in-fish-supply-chains/>

(h) Report of **September 2012 Philippines WINFISH conference** <http://genderaquafish.org/2012/10/20/philippine-conference-on-women-fishers-a-great-success/>

(i) Release of the 2012 World Bank/FAO/WorldFish Center study “**Hidden Harvest**” on **employment in small scale fisheries**, including gender disaggregated data: <http://genderaquafish.org/2012/09/17/women-hold-up-47-of-the-fisheries-sky/>

With GAF4 in the planning (see: <http://genderaquafish.org/2012/10/21/gaf4-news-follow-updates-on-genderaquafish-org/>), and many more gender and fisheries events planned, we look forward to a productive year with even further growth in interest in gender in aquaculture and fisheries.

We welcome first hand news of gender in aquaculture and fisheries and related events, and information on your publications, achievements and views. Please keep them coming in! 2013 Looks like being a big year for the growth in interest and knowledge for gender in aquaculture and fisheries.

Contributed by: Meryl J Williams

AsiaPacific-FishWatch

Share your experiences at 10AFAP on making authoritative aquaculture and fisheries information publicly accessible. In our last report we described progress on preparing information on the four main tuna species, skipjack, yellowfin, bigeye and albacore. Work continues in finalizing these species. Skipjack is nearing completion. As skipjack will be the very first species to be completed, we are focusing on overall structure of the information and style of presentation. The succeeding species will follow the final format on which we decide. All this is in addition to giving the near final draft thorough peer review so that users of AsiaPacific-FishWatch can trust that what they are reading is the most reliable knowledge available.

We will also hold an AsiaPacific-FishWatch session at 10AFAP and would welcome papers relating to the theme of bringing authoritative information on Asia-Pacific fisheries and aquaculture to a wide audience. We would be interested in hearing your national/regional or commodity-specific experience on making authoritative information publicly accessible.

Contributed by: Meryl J Williams

US-FDA on the verge of approving GM Salmon

US-FDA has issued for public comment a draft environmental assessment (EA) related to the agency's review of an application concerning AquAdvantage Salmon, a genetically engineered Atlantic Salmon. FDA's preliminary finding is that an approval of this application, under the specific conditions proposed in the application would not have a significant impact (FONSI) in the US environment. AquAdvantage Salmon is a product of AquaBounty Technologies of U.S.

The draft report could be downloaded from:

<http://www.fda.gov/downloads/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/UCM333105.pdf>

Source:

<http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/GeneticEngineering/GeneticallyEngineeredAnimals/ucm280853.htm>

Developing a joint training course for the Ecosystem Approach to Fisheries Management

Promoting an ecosystem approach to the management of natural resources features prominently on the Johannesburg Plan of Action of the WSSD, and is also one of the targets of the CBD. The Ecosystem Approach to Fisheries, in particular, to fisheries management (EAFM), is championed by the UN-FAO.

The FAO defines an EAFM in this way: “An approach to fisheries management and development that strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic, and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries. EAFM represents a move away from management systems that focus only on the sustainable harvest of target species to a system that also considers the major components in an ecosystem, and the social and economic benefits that can be derived from their utilisation.

However, understanding of EAFM is still limited, there is confusion with similar approaches, in particular so-called “ecosystem-based approaches”, there are uncertainties about what “tools” are applicable and available, and it is still a major challenge to move from theory to practice. As the concept is highly complementary and supportive to the Large Marine Ecosystems (LME), the Bay of Bengal Large Marine Ecosystem Project (BOBLME), implemented by the FAO with funding support from GEF, SIDA, NORAD, and NOAA, has taken the initiative to commission the development of an EAF training course for the 8 Bay of Bengal countries Bangladesh, India, Indonesia, Malaysia, Maldives, Myanmar, Sri Lanka, and Thailand. These countries are collaborating through the BOBLME Project to better the lives of their coastal populations by improving regional management of the Bay of Bengal environment and its fisheries.

At the same time, NOAA and CTSP have been developing an EAFM curriculum for the 6 countries of the Coral Triangle Initiative—Indonesia, Malaysia, Philippines, Timor-Leste, Solomon Islands, and Papua New Guinea—that are partnering to address the urgent threats that face the coastal and marine resources of the Coral Triangle region.

Both initiatives had very similar course contents and objectives, and therefore decided to initiate the development of an integrated and standardized curriculum and training package that could be taught to participants from these regions and others to support sustainable fisheries management for food security, livelihoods, economic growth, and biodiversity conservation

In late November, a team from CTI, NOAA, BOBLME (including the President of AFS acting as a consultant) and two capacity-building and training experts from the United Kingdom-based IMA International met at a *writeshop* in Phuket, Thailand, to further develop the joint curriculum. This is to be followed by a trial run of the training material in Manila at the end of January and an intensive period of “Train the Trainers”.



At the writeshop in Phuket, Thailand, Silvia Capezzuoli of IMA International, Chris O'Brien of the Bay of Bengal Large Marine Ecosystem Project, and other partners have animated discussions about the training materials for an Ecosystem Approach to Fisheries Management course under development. *Photo courtesy of Chris Grose, IMA International*

Drafted by Rudi Hermes, BOBLME

Repository of SEAFDEC

The South-East Asian Fisheries Development Centre (SEAFDEC) has launched its Institute's repository with hundreds of papers, books, extension manuals, articles and newsletter items reaching back to 1978 and proposes to further augment with pictures, videos, presentations, etc. The repository is readily searchable and can be accessed at <http://repository.seafdec.org.ph/>

Eprints@CMFRI

The Central Marine Fisheries Research Institute, India has launched *Open Access Repository* of its publications on fisheries and related areas– journal papers, reports, theses, patents, etc. going back to 1948 to present, and this can be accessed at <http://eprints.cmfri.org.in/>. Interested users can freely download and use documents as most of them are directly accessible and full-text downloadable. “Request Copy” forms can be used for documents whose direct full-text download is restricted due to publishers' embargo. The documents are indexed by author, year, document type, division and subject. The collection is indexed in many main academic services such as Scientific Common, Scirus, Google, etc.

Monograph of Mangrove and Coastal Environment of Selangor, Malaysia

This monograph is edited by Sasekumar, A. and V.C. Chong, and is published by the Institute of Ocean and Earth Sciences, University of Malaya. This is an updated version of an earlier publication titled “Ecology of Klang Strait” published in 2005 by the same authors. The monograph contains a wealth of information with a significant amount of new information; the chapters are generally well-written and easy to read, and will provide interesting reading to scientists, policy makers and lay persons.

Contributors include world renowned mangrove researchers from Malaysia, Australia and the United States of America. The monograph addresses a wide range of topics covering the physical features, geology, hydrography, mangrove fauna and flora as well as human use and mangrove ecosystem services.

The monograph is divided into four sections: Physical environment; Intertidal habitats; Open waters and estuaries; and Resource valuation. Five new chapters were added to the new monograph, which also have four revised chapters. Four new chapters were included in the section on “Intertidal habitats”: (i) Phytobenthos in a low shore mangrove forest; (ii) The polychaete reefs of Jeram, Selangor; (iii) Ecology and evolution of mudskippers and oxudercine gobies: perspectives and possible research directions and (iv) Monitoring the fireflies of the Selangor River.

The chapter on fireflies will be of great interest to those who are interested in the environment. Chapter 10 on the ecology and evolution of mudskippers makes fascinating reading and the review is most informative and educational. The remaining new chapter “Microbial ecology of Port Klang waters” is found under the section “Open waters and estuaries”.

In this monograph I was hoping to see a chapter on the mangrove land use in the Klang Strait including some information on the remaining mangrove stands and a map to show where these areas are located. It will be interesting to find out the total area of mangroves converted to shrimp farms in the Selangor coast. The impact of aquaculture on the coastal environment will be a topic of interest. Kuala Selangor is known for the quality of the cockle (*Anadara granosa*) cultured in the mudflats and I look forward to some affirmative statement in a future update of this Chapter which will assure that the cockles and other mollusks in this area are still safe for consumption.

For those interested to procure a copy, please contact: The Director, Institute of Ocean and Earth Sciences, University of Malaya, 50603 Kuala Lumpur or email ioes@um.edu.my

Contributed by: Choo Poh-Sze

KANAZAWA RESEARCH FELLOWSHIP AWARDS TO YOUNG ASIAN SCIENTISTS

The AFS is offering awards up to US\$5,000 (research fund) to successful applicants to support their doctoral degree research and US\$1,500 as airfare/accommodation support to attend the 10th Asian Fisheries and Aquaculture Forum (10AFAF) to present a paper as well as a progress report to the Fund's Committee of the ongoing research study.

Eligibility for the Grant:

1. Any student who is undertaking research for his/her doctoral degree in any aspect of fisheries and aquaculture is eligible to apply for the grant;
2. The applicant should be from one of the countries in Asia;
3. The applicant should not be over the age of 35 yrs as on 29 April 2013; and
4. The applicant should have been registered with one of the Universities in Asia and undertaking research in any aspect of fisheries and aquaculture;

Application procedures:

1. Applications are to be submitted in the prescribed format (see attachment);
2. Applications should be accompanied with a brief statement of his/her research project not exceeding 3 pages (including objectives, issues to be addressed and expected outcomes) and two references/recommendation letters from his/her supervisor(s);
3. The application should be accompanied by a letter from his/her Research Supervisor indicating that the Supervisor will supervise the research work and monitor the fund use;
4. The application with attachments should be sent to the Executive Officer, Asian Fisheries Society at c/o Lab. Marine Biotechnology, Institute of Bioscience, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor, MALAYSIA, email: info@asianfisheriessociety.org; and
5. The last date for submission of applications is January 31st 2013. Applications reaching AFS after this date will not be considered.

Conditions for approval of grant:

1. Before the grant is released, the successful candidate should submit a letter from the University authorities indicating that the University is willing to monitor the use of grant and will not charge any overheads;
2. The fund will be transferred to the University where the candidate is registered for his/her degree;
3. The grant can be utilized for purchase of small equipment or for supplies related to the research;
4. The grant should be utilized within 2 years from the date of release of funds;
5. At the end of project period, the applicant should provide AFS with detailed statement of expenditure of the grant certified by the University authorities and 3-5 page summary of research achievement(s);
6. The applicant should be willing to acknowledge in his/her dissertation/publication the research grant received from AFS/Kanazawa endowment;
7. The awardee should be willing to publish at least one paper from the thesis in AFS journal; and
8. The awardee should provide a copy of his/her thesis for AFS library.

Action to be taken by AFS:

1. AFS will announce the availability of the grant through its website and also 10AFAF website (<http://www.koference.org>) by end of November 2012.
2. AFS will constitute a Committee of 3 standing Councilors to judge the applications received and recommend to the Executive Committee the best submission;
3. A final decision on the selection of applicants will be taken by AFS before 28 February 2013, and informed to the candidate for his/her agreement to the conditions associated with the grant; and
4. Award of the grant will be announced at the 10AFAF

FORMAT FOR APPLICATION FOR AFS/KANAZAWA AWARD

1. Name of the applicant
2. Age of the applicant
3. Address including email, telephone and mobile nos.
4. Institution with which he/she is registered
5. Title of the research project
6. A brief summary of the proposed research (objectives, research questions to be addressed, expected outcomes, etc.)
7. Details of Supervisors/Guide for the research
8. Time frame of the project
9. Place where the research will be undertaken
10. Details of other sources from which funding has been received for this research
11. A statement saying "I agree to abide by the rules of AFS in utilizing the grant funds for research"
12. Signature and date
13. Signature of Research Supervisor/Guide

ASIAN FISHERIES SOCIETY/KANAZAWA AWARD FOR BEST PAPER PRESENTED BY YOUNG ASIAN SCIENTISTS***Conditions for the Award:***

1. The applicant for the award should be from an Asian country and should be below the age of 35 years;
2. If the paper is authored by more than one, all the authors should be from Asian countries;
3. The applicant should have been registered for the 10AFAP and submitted the full paper for presentation by 20 December 2012;
4. The results presented in the paper should not have been published elsewhere; and
5. The work presented should have been done within the last 5 years (between 2009 and 2013).

Attached Files :

[Kanazawa Research Grant \(Letter of Recommendation\).pdf](#)

[Kanazawa Research Grant \(Application Form\).pdf](#)

[Kanazawa Research Grant \(Research Proposal\).pdf](#)

UPCOMING CONFERENCES

10th ASIAN FISHERIES AND AQUACULTURE FORUM (10AFAF) & 4th INTERNATIONAL SYMPOSIUM ON CAGE AQUACULTURE IN ASIA (CAA4)



▣ **DATE** : April 30 (Tue) - May 4 (Sat) 2013 ▣ **VENUE**: Yeosu, Korea

▣ THE FORUM

10th Asian Fisheries and Aquaculture Forum (10AFAF) jointly organized by the Asian Fisheries Society (AFS) and The Korean Society of Fisheries and Aquatic Science (KOSFAS) will bring together distinguished scientists from all over the world to discuss issues pertaining to sustainable fisheries and aquaculture, including among other topics, fish habitats and ecosystems (marine and freshwater), and the effective utilization of fish, shellfish and algae resources in the Asian-Pacific region.

▣ THEME

The forum will focus on the theme; *"Blue Waters and Green Fisheries"* to achieve the following objectives:

1. To provide a venue for scientists and stakeholders to share information on the status and recent advances in aquaculture and fisheries.
2. To promote collaboration among scientists, policy makers, and all stakeholders involved in aquaculture and fisheries.
3. To ensure food security and safety through sustainable fisheries and aquaculture practices.

▣ SPECIAL SYMPOSIUM

4th International Symposium on Cage Aquaculture in Asia (CAA4) will be held concurrently with the 10AFAF. In addition, there will be a special symposium on *Gender & Fisheries* supported by the FAO.

▣ TRADE EXHIBITION

The accompanying trade exposition will exhibit fisheries and aquaculture related industries and their products during the 10AFAF. There will be farmer's day for information exchange between farmers and exhibitors. AFS are welcoming all interested companies to participate in this prestigious trade show. Kindly find the link for more information at <http://www.koference.org/exhibition.do?mode=online>

▣ CALL FOR ABSTRACTS AND PAPERS

The 10AFAF calls for the submission of papers for oral and poster presentations. Abstracts and full papers must be in English, and should be submitted by **February 28, 2013**. Specific guidelines for the abstract submission will be posted on the forum website. Oral presentation will be given 15 minutes and plus 5 minutes for questions and answers session. Oral presenters should use Power Point Presentation (PPT). Full papers should be prepared following the instructions posted on the forum website. Full papers presented at the forum will be refereed and published in the **Asian Fisheries Science Journal**. Poster board of the size 80×110 cm will be provided. Posters should not exceed this size. Contents should be typed in sufficiently large font size which can be read from 2 meter distance.

■ REGISTRATION

All participants should register early for the 10AFAF and CAA4. For more info at this link: <http://www.koference.org/>

■ LOCAL ORGANIZING COMMITTEE (EXECUTIVE COMMITTEE)

·Chairperson :Prof. Lee Jeong-Yeol
 ·Vice-chairperson :Prof. Jeong Gwan-Sik
 ·Members :See 10AFAF Forum website
 ·Tel :+82-63-469-1834
 ·Fax :+82-63-464-6416
 ·Email :yjeong@kunsan.ac.kr

9th Symposium on Diseases in Asian Aquaculture (DAA9)

The Fish Health Section (FHS) of the Asian Fisheries Society (AFS) is very pleased to announce that the 9th Symposium on Diseases in Asian Aquaculture (DAA9) will be held in **Ho Chi Minh City, Vietnam from 24-28 November 2014.**

The Fish Health Section of the Asian Fisheries Society was founded in May 1989 with the goal to improve regional knowledge on fish health management and to support sustainable aquaculture development in Asia Pacific. FHS strives to promote interaction by bringing together fish health researchers to share their knowledge and experience. The FHS is credited with holding triennial symposia on “**Diseases in Asian Aquaculture**” (DAA) where members and aquatic animal health professionals meet to discuss broad issues and specific topics related to aquatic animal health. FHS has conducted earlier symposia in Bali, Indonesia (1990); Phuket, Thailand (1993); Bangkok, Thailand (1996); Cebu, The Philippines (1999); Gold Coast, Australia (2002); Colombo, Sri Lanka (2005); Taipei, Taiwan (2008) and Mangalore, India (2011). Each of these symposia brought together more than 300 aquatic animal health scientists, students, government researchers and industry personnel from over 30 countries to discuss issues pertaining to aquatic animal disease, their diagnosis, prevention and control.

In keeping with the tradition of previous DAA symposia, DAA9 in Vietnam is going to be a unique experience that you don't want to miss. Please mark the dates in your calendar of events and prepare to visit Vietnam to witness spectacular developments in aquaculture. First announcement of DAA9 will be made in the first semester of 2013 providing all the necessary details and information. Please look out for information on DAA9 and FHS on our website <http://www.fhs-afs.net>

~AFS MEMBERSHIP RENEWAL NOTICE~

Dear AFS Members:

The Secretariat of AFS is in the process of improving its services to members to ensure increased interaction between members and the Society. Therefore, the Secretariat requests all AFS members to up-date their contact information, especially e-mail address and mailing address, by using the membership form.

Members can also use the same form to pay their membership dues through credit card. The form can be returned to the Secretariat via email (as mentioned above) or fax to: +603-89472217.

Thank you for your cooperation.

The Secretariat

Synopsis of papers in Vol.25 (4) Asian Fisheries Science Journal

Fishery Associated with Floating Objects in the Indian Ocean off Southern Sri Lanka

M. M. Ariyaratna and U. S. Amarsinghe

The present study was carried out from August 2007 to January 2008 in southern Sri Lanka to investigate the catch composition of offshore fisheries from multi-day boats. Some boats were engaged in flotsam associated surrounding net fisheries. The fish landings from 77 boats were classified into three categories: (i) only from surrounding nets (S), (ii) from surrounding nets plus drift gillnetting/longlining (SGL), and (iii) only from drift gillnetting/longlining (GL). The catch estimate in each boat trip was categorised into one of the three groups for every fish species caught.

Length-frequency, Yield and Biomass Per Recruit Analysis for Yellowfin Tuna, *Thunnus albacores* (Bonnaterre, 1788) in the Arabian Sea off Oman

M. Abdel-Barr, A. El-Sayed and A. Al-Oraimi

The study was carried out to evaluate the stock of *Thunnus albacares* (Bonnaterre, 1788) in the Arabian Sea off Oman. A random sample of 3,690 fish representing a wide range of total lengths (44-156 cm) and weights (3-64 kg) were collected from Al-Sharqya area, Oman from January to December 2007. Length-frequency analysis and yield and biomass per recruit models were used.

Efficacy of Probiotics on Growth and Sustainable Production of Black Tiger Shrimp, *Penaeus monodon* (Fabricius 1798) in Brackishwater Ponds of West Bengal, India

B.M.A. Hasan, B. Guha and S. Datta

In the study, the efficacy of probiotics was assessed by counting both the beneficial (total heterotrophic bacteria; THB) and pathogenic (green *Vibrio* and luminous *Vibrio*) bacteria *vis-à-vis* harvest outcomes (survival, body weight, feed conversion and production) of cultured shrimp, *Penaeus monodon* (Fabricius 1798). After harvest, a significantly higher growth and production yield ($p < 0.05$, 0.01) of shrimp in the treatment ponds suggested that probiotics played a vital role on better growth and sustainable production of black tiger shrimp by modulating the bacterial population and improving the pond environment.

Ammonia-induced and Withdrawal-dependent Neurotoxic (Acetylcholinesterase) and Antioxidative (Catalase) Responses in Catfish, *Clarias batrachus* (Linnaeus, 1758)

A. Shiwanand and G. Tripathi

Ammonia-induced and its withdrawal-dependent changes in acetylcholinesterase (AChE) and catalase (CAT) of liver, gill and skeletal muscle of *Clarias batrachus* (Linnaeus, 1758) were investigated. AChE activity declined gradually in these tissues up to 35 days of ammonia exposure. In contrast, CAT activity increased up to 7 days and thereafter, it declined to some extent. Since ammonia-induced neurotoxic (AChE) effect was more pronounced than antioxidative (CAT) response, AChE may be used as an indicator of ammonia toxicity in aquaculture.

Comparison of the Whole Body Composition of Fatty Acids and Amino Acids between Reared and Wild Snakehead Fish *Channa striata* (Bloch 1793) Juveniles

Aliyu-Paiko, M*, Hashim R¹ and Amuzat Aliyu²

The whole body compositions of fatty and amino acids of cultured and wild *Channa striata* (Bloch 1793) juveniles in Malaysia were compared. Whole body proximate analysis of both the wild and cultured revealed that moisture content ranged between 68.1 and 70.8%, 52.7 to 55.4% crude protein, 16.2 to 20.9% crude lipid and 15.1 to 21.0% ash, and did not significantly ($P > 0.05$) differ among the samples. In the fatty acid (FA) analysis, arachidonic acid (20:4n6) was detected as the most abundant n-6 FA, whereas eicosapentaenoic acid (EPA, 22:6n3) was among the highest n-3 FA. Polyunsaturated fatty acid (PUFA) was also recorded in appreciable quantity among the FA classes tested.

Antibacterial Properties of the Microalgae *Chaetoceros calcitrans*

Ebonia B. Seraspe, Bernadeth F. Ticar, Minda J. Formacion, Ida G. Pahila, Milagros R. de la Pena and Edgar C. Amar

The antibacterial properties of the microalgae *Chaetoceros calcitrans* were assessed. Samples of *C. calcitrans* were first extracted in methanol, and then in different organic solvents of increasing polarity, n-hexane (n-Hex), dichloromethane (DCM) and ethyl acetate (EA) by liquid-liquid extraction. Solvent extracts were screened for antibacterial activity against four species of bacteria: Gram positive, *Staphylococcus aureus* and *Bacillus subtilis*; and Gram negative, *Escherichia coli* and *Vibrio harveyi*, with Amoxicillin as positive control, N-Hex extract, with significantly lower antibacterial activity than Amoxicillin, showed significantly higher activity than DCM and EA extracts, and least in methanolic extract.

Ratio Optimisation of Media Ingredients for Mass Culture of Tubificid Worms (Oligochaeta, Tubificidae) in Bangladesh

Anwar Hossain, M.F.A. Mollah and Mahmud Hasan

Two experiments were undertaken in a small cement raceway culture system to determine the best media ingredients and their ratios suitable for the mass culture of tubificidworms. The first experiment focused to determine the best medium suitable for maximum yield, while the effect of rice gruel was measured in the second. At the 70th day of culture, a significantly higher ($p < 0.05$) yield of 678.62 ± 11.50 mg·cm⁻² worms was found in the culture medium containing the mixture of 20% wheat bran (WB), 30% soybean meal (SM), 20% mustard oil cake (MOC), 20% cow dung (CD) and 10% sand. The highest yield of worms ($1,126.03 \pm 31.08$ mg·cm⁻²) was obtained when rice gruel was used to wet the culture media ingredients instead of water. The cost of producing 1 kg worms was reduced by half as a result of using less media ingredients.

New AFS Publication for Sale



GENDER IN AQUACULTURE AND FISHERIES:
MOVING THE AGENDA FORWARD



SPECIAL ISSUE

AFS Member: USD15

GUEST EDITORS

Meryl J Williams

Marilyn Porter

Poh Sze Choo

Kyoko Kusakabe

Veikila Vuki

Nikita Gopal

Melba Bondad-Reantaso

GUEST EDITORIAL

Gender in Aquaculture and Fisheries: Moving the Agenda Forward

**MERYL J WILLIAMS, MARILYN PORTER, POH SZE CHOO, KYOKO KUSAKABE, VEIKILA VUKI,
NIKITA GOPAL AND MELBA BONDAD-REANTASO**

Gender in aquaculture and fisheries is still under-researched but interest is increasing. This volume shows progress in visualizing women's contribution to fisheries and aquaculture and also in structural analysis on value chains and institutions. Faced, however, with additional challenges such as climate change and economic integration, more nuanced analysis is now needed on ecological, economical, political and cultural systems. Factors such as class, age, ethnicity, race, caste, religion etc all come into play to define/condition gender relations.