

ISSUE 24

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MESSAGE FROM EDITOR



One of the major highlights during the period of report (January – June 2017) is the Gender in Aquaculture and Fisheries (GAF) becoming a Section of the Society (GAFS). The members of the Society have been very active in gender issues in fisheries and aquaculture for a very long time, not only at regional level, but also at global level, going back to 1980 with the first workshop on gender issues in aquaculture organised by Late Dr M.C. Nandeeshia in Cambodia. Dr. M.C. Nandeeshia laid the foundation for gender research and now Dr Meryl Williams is spearheading the activities. The section on GAFS in the report provides details as to how one can become a member of GAFS.

Indian and Taiwan branches of the Society have been very active in organising meetings and workshops as detailed in this issue.

The Society is making efforts to revive the Asian Fisheries Social Scientists Research Network (AFSSRN) which has been dormant for some years. It started in 1983 as a network coordinated by the World Fish Center (at that time ICLARM) and subsequently became a Section of AFS in 1996 due to interest shown by the members of the network. At one time the network had 15 research teams consisting of over 80 scientists from different institutions/organisations. AFSSRN played a major role in capacity building in social science research and overseeing implementation of research programs. This issue of newsletter provides details of person to be contacted to become a member of AFSSRN.

Two major conferences of AFS are scheduled during the second half of 2017: (i) 11th Indian Fisheries and Aquaculture Forum (11ifaf) and (ii) 10th Symposium on Diseases in Asian Aquaculture (DAA10). Details of both these conferences are in this issue.

The issue also provides details of conferences scheduled for 2017, some new publications and news.

M. V. Gupta

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AFS PRESIDENT MESSAGE



Dear Esteemed Members of the AFS,

Greetings!!

First of all, I would like to convey my sincere thanks and gratitude to all of you for your continued support and guidance at all times.

Friends, during last six months although AFS did not organise any major event, I am pleased to inform you that the Society, as a Co-organiser, was associated in the organisation of the '*International Conference on Advances in Fish Health 2017 (ICFISH)*' along with Universiti Putra Malaysia and Malaysian Fisheries Society during 4th – 6th April, 2017 at Kuala Lumpur, Malaysia. The Fish Health Section of the Society is now all set to provide unique platform for organisation of the triennial event, "Diseases in Asian Aquaculture (DAA10)" in Bali, Indonesia during 28th August to 1st September, 2017. The 50th Council Meeting of the AFS held at National Cheng Kung University, Tainan, Taiwan on 28th April, 2017 approved for organisation of different events in the coming two years, i.e. 3rd International Symposium in Aquaculture and Fisheries Education (ISAFE3) at Mumbai, India during 14th -16th February, 2018; 6th Cage Aquaculture in Asia (CAA6) at Thailand, during 4th quarter of 2018; and 12th Asian Fisheries and Aquaculture Forum (12th AFAF) at Iloilo, Philippines during 8th - 12th April, 2019. I am sure, with your cooperation, the Society would be successful in bringing together the scientists, academicians, developmental personnel, policy makers, students and entrepreneurs into common platforms periodically to deliberate on issues of greater interest and would be able to formulate appropriate road map for R&D in fisheries and aquaculture in the region.

I am happy to inform you that with the invitation of the Japanese Society of Fisheries Science (JSFS), AFS would be a co-organizer of the International Symposium on "*Fisheries Science for the Future Generations*" to be held at Tokyo University of Marine Science and Technology during 22th - 24th September, 2017. I would also like to convey my sincere thanks to the JSFS for inviting me to participate in the 85th Commemorative Ceremony of the JSFS at Tokyo, Japan on 21st September, 2017 and subsequently in the International Symposium, and I look forward for greater interactions between these two important Societies during my participation in the event.

The Asian Fisheries Society Indian Branch (AFSIB) is also organising the 11th Indian Fisheries and Aquaculture Forum (11IFAF) with the theme '*Fostering Innovations in Fisheries and Aquaculture - Focus on Sustainability and Safety*' at Kochi, India during 21th -24th November, 2017 and in this endeavour, as the Chairman of the AFSIB, I wholeheartedly welcome all of you to participate in this important event. Although the different functional committees, with set objectives, have been working for providing a new vigour for efficient functioning of the Society, at this juncture, I also sincerely wish to have a greater cooperation from all of you for strengthening the AFS with enrolment of new members and your guidance for effective functioning of the Society.

J.K.Jena

President AFS

NEWS FROM THE GENDER IN AQUACULTURE AND FISHERIES SECTION



The Gender in Aquaculture and Fisheries Section of AFS is now up and running. You can find the formal materials, such as on how to become a member, the By Laws, etc on <https://genderaquafish.org/gaf-section/>.

Our first actions this year was to start to enrol members, with the support of our existing network, social media, and with the collaboration of the Executive Officer of AFS. We now have nearly 50 signed up members, who are served by a group e-mail list and now starting wider campaigns to attract new members. Members who enrol before the end of 2017 will be called Founding Members.

Our next step was to call for volunteers and nominations from among the current Founding Members to become the Inaugural Officers whose tasks are to: (a) determine the process and facilitate the ratification of the By-laws, (b) organize the election of officers (Executive Committee) of GAFS, induction and turn-over of responsibilities, and (c) coordinate with the Asian Fisheries Society re: implementing the By-Laws of GAF Section within AFS.

The Inaugural Officers are:

Chair/Coordinator: **Meryl J Williams (Australia)**

Vice-President/Deputy Coordinator: **Nikita Gopal (India)**

Secretary/Treasurer: **Kafayat Fakoya (Nigeria)**

Elections Coordinators: **Mohammad Nuruzzaman (Bangladesh), Alice Ferrer (Philippines)**

Constitution Coordinator: **B. Shanthi (India)**

Membership Coordinator: **Danika Kleiber (USA)**.

To help during establishing the GAFS in 2017, we are very grateful and pleased to announce that the (USA) AquaFish Innovation Lab has provided a grant through the Asian Fisheries Society.

The GAFS Inaugural Officers have been meeting by electronic means to establish GAFS on a firm footing. Here are some highlights from discussions of GAFS inaugural officers:

1. Elections of first GAFS Executive Committee: By July, a comprehensive election plan will be developed stipulating guidelines for the elections that will be concluded mid-September 2017. GAFS members will have the opportunity to exercise their rights via online or virtual voting to elect the most suitable candidates into vacant offices of the Executive Committee.

2. Membership: Presently, new members into GAFS are drawn from existing AFS members, and Genderaquafish e-mail group members. The Inaugural Officers, led by Dr Danika Kleiber are discussing additional avenues for attracting members to GAFS. Including student members, and grassroots membership by encouraging participation of local women/men representatives from those involved in small-scale fisheries (SSF) including small-holder aquaculture.

3. GAFZ: Plans are being discussed on organizing the GAF7 Conference/Symposium.

4. GAFS at 11IFAF: The official launch of GAFS by the AFS President, Dr J.K. Jena, and other events related to gender, will happen at the 11th Indian Fisheries and Aquaculture Forum, Kochi, November 2017.

Of special note is the Symposium on Gender in Aquaculture and Fisheries in India (GAF-India) that will be held as part of the 11th Indian Fisheries and Aquaculture Forum. India has a vibrant fisheries sector ranging from the very traditional to the large scale, with diverse value chains and with varying contributions of women and men to the sector. Women and gender studies grounded in Indian fisheries and aquaculture experiences have contributed significantly to global knowledge. A more intensive examination of Indian issues will have wide-ranging benefits in India, regionally and globally. The GAF-India event will engage with the themes of the IFAF, and suggest future priorities arising from its own gender themes. The format of the symposium will be organised under various topics, with each having oral and poster presentations.

In conjunction with GAF-India, an International Workshop on *Challenges in the Implementation of the Voluntary Guidelines on Small Scale Fisheries (SSFVG) of FAO in South Asia* will be held. With the new Guidelines approved, the real challenges for the small-scale fisheries sector now lie in how effectively the Guidelines can be implemented and ways and means to sensitize all stakeholders in the fisheries sector towards its overall goals. This one day workshop during GAF-India will bring this challenge into focus through experiential presentations from selected countries.

Those intending to present and/or attend GAF-India should register through the main 11IFAF system. Further details on the GAF-India themes will be posted on <http://genderaquafish.org/>.

Other GAFS News

Giant Prawn 2017 Conference Gender Panel: The first activity in which GAFS was formally a partner was the Gender Panel session of the Giant Prawn 2017 Conference held in Bangkok in late March. A report of the Gender Panel, authored by Drs Malasri Khumsri, Amonrat Sermwatanakul and Harvey Demaine, is posted on the GAFS website - <https://genderaquafish.org/events/2017-giant-prawn-gender-march-bangkok/>. The Panel reviewed case studies on women's roles and gender issues in Bangladesh and Thailand. When asked whether the findings of the two studies were any surprise, the Panel's view was that, while the involvement in low-cost marginal occupations was well-known, the range of opportunities for women was much wider but the value chain had to be explored in detail to identify these and promote them.

GAF6 Follow-up: The report of the 6th Global Symposium on Gender in Aquaculture and Fisheries ("Engendering Security in Fisheries and Aquaculture") held at 11AFAP, has been approved by all the presenters and is posted on the GAFS website - <https://genderaquafish.org/events/2016-gaf6-august-bangkok-thailand/engendering-security-in-fisheries-and-aquaculture/>.

A Special Issue of *Asian Fisheries Science* journal papers is in train based on papers from GAF6. Publication is planned for November 2017, to coincide with the 11IFAF. As with the previous two Special Issues, based on GAF4 and GAF5 papers, the work will be carried out from India, with Dr Nikita Gopal of the ICAR- Central Institute of Fisheries Technology being chief guest editor and leading a team of international expert co-editors.

GAFS communications: Gender in aquaculture and fisheries activities, now through GAFS, continue active outreach with our website, the Genderaquafish e-mail group, and by other social media outlets. Last year, 2016, the website was viewed more than 20,000 times by more than 10,000 different visitors.

A new communication activity is being carried out with *Aquaculture without Frontiers Australia*, in which a "Women in Aquaculture" profile has been drafted and is undergoing peer review before uploading by AwF and on our Discover GAF (<https://genderaquafish.org/discover-gaf/>), a compendium of lay language treatments of key GAF topics.

By Meryl Williams (Chair/Coordinator), Kafayat Fakoya (Secretary/Treasurer), and Nikita Gopal (Vice Chair/Coordinator), Gender in Aquaculture and Fisheries Section.

Website: <http://genderaquafish.org/>

Facebook Page: <https://www.facebook.com/AFS-Gender-in-Aquaculture-and-Fisheries-181176555231544/>

Twitter: @Genderaquafish <https://twitter.com/Genderaquafish>

ASIA PACIFIC-FISHWATCH NEWS

AsiaPacific-FishWatch launched the species profile for Pacific Bluefin tuna (*Thunnus orientalis*) in March 2017. The profile pages can be read at: <http://www.asiapacfish.org/index.php/species/item/27-pacific-bluefin-tuna>

All pages of the profile were peer reviewed and the final profile further discussed at the Scientific Advisory Committee Meeting of the International Seafood Sustainability Foundation in Santa Monica (USA) in March 2017. Feedback was highly positive and additional information and sources were presented to be incorporated. Pacific Bluefin Tuna is a species of political, conservation, and aquaculture interest.

Further funds and partnerships are being sought to expand the species profiles on AsiaPacific-FishWatch.

In addition to information on the AsiaPacific-FishWatch website, AFS members can keep abreast of Asia-Pacific fisheries and aquaculture news by liking our Facebook page (<https://www.facebook.com/asiapacificfishwatch>), and following us on Twitter (@Asiapacfish, <https://twitter.com/Asiapacfish>). The followers for both their social media outlets continues to grow steadily.

We welcome suggestions and contributions for AsiaPacific-FishWatch. Please contact: asiapacific.fishwatch@gmail.com.

Meryl Williams, AsiaPacific-FishWatch Interim Director,

Honorary Life Member AFS.

AFS BRANCHES

Indian Branch

Organisation of National/International Events

During the period the Asian Fisheries Society Indian Branch (AFSIB) has been associated in organization of several national events/programmes, as given below.

National Students Convention on 'Innovative Approaches for Academic Excellence in Higher Fisheries Education'

In order to provide a platform for the graduate and post-graduate students on Fisheries and Aquaculture to present their innovative ideas in research and education a National Students Convention on 'Innovative Approaches for Academic Excellence in Higher Fisheries Education' was organized by ICAR-Central Institute of Fisheries Education (CIFE), Mumbai, India in association with Indian Fisheries Association (IFA), Asian Fisheries Society Indian Branch (AFSIB) and Post-Graduate School Students Union (PGSSU) at CIFE, Mumbai during 3-5 March, 2017. About 500 students from fisheries colleges all over India participated with a display of 134 posters highlighting their innovative ideas. The events included poster exhibition, brainstorming sessions on Blue Revolution: Way Forward, Innovations for Excellence in Higher Fisheries Education, Industry Meet, Alumni Meet, Cultural evening, Best Poster Presentations, Book release and Valedictory function.

2.National Seminar on "Priorities in Fisheries and Aquaculture" held at College of Fisheries, Odisha, India

A National Seminar on "Priorities in Fisheries and Aquaculture" was held during 12-13 March, 2017 at College of Fisheries, Rangeilunda, Odisha, India, which was organised by the Inland Fisheries Society of India (IFSI) in collaboration with College of Fisheries, Odisha; Orissa Fisheries College Alumni Association, Rangeilunda (OFCAAR); the Asian Fisheries Society Indian Branch (AFSIB) and the ICAR-Central Inland Fisheries Research Institute (CIFRI).

Over 450 delegates participated in the Seminar and 230 papers were presented through four parallel technical sessions. An exhibition for showcasing various fisheries and aquaculture products and technologies of fisheries institutes, state fisheries departments and Industries was also organized. Best oral and poster presenters were awarded during the Seminar.

Forthcoming Events of AFSIB

The triennial event of AFSIB i.e. the 11th Indian Fisheries and Aquaculture Forum (11ifaf) with the theme "Fostering Innovations in Fisheries and Aquaculture - Focus on Sustainability and Safety" is scheduled for 21-24 November 2017 at Kochi, Kerala and will be hosted by the ICAR - Central Institute of Fisheries Technology, Kochi. The forum will deliberate on sub-themes like fisheries resources; genetics, biodiversity and management; fishing systems for sustainable fishery; fishery biology, toxicology and environment; aquaculture production; aquatic animal health management; adding value to fisheries; avenues in fish biochemistry and fish processing; safe fish: quality, risk assessment and regulations; innovations for blue bio economy; socio-economics; gender; capacity building and livelihood and fisheries trade, policy and governance. In addition, "International Symposium on Climate Change and Food Safety Issues" and a Sea Food Processors Conclave is scheduled during the forum. An exhibition highlighting the achievements of the major research institutions, State Government Departments, fish processing industries and NGOs will be arranged at the venue of the forum. The details of the 11th IFAF are available at www.11ifaf.in

Taiwan Branch

The Taiwan Fisheries Society annual meeting was held at the National Taiwan Ocean University on January 17, 2017. AFS-Taiwan Branch has organized a parallel one hour meeting during this conference. Councilor Dr. Huang reported the participation of AFS-TB members to the 11th AFAF.



50th Council meeting of Asian Fisheries Society was held at Tainan, Taiwan on April 28, 2017. The meeting was hosted by the Councilor Dr. Han-Ching Wang of National Cheng-Kung University. In this meeting, National Cheng-Kung University expressed its interest to host the 13th Asian Fisheries and Aquaculture Forum in 2020. This proposal will be discussed by the AFS Council later.

ASIAN FISHERIES SOCIAL SCIENCES RESEARCH NETWORK (AFSSRN)

With the objective of promoting effective interaction and cooperation among persons involved in living aquatic resources social science research, AFS is in the process of reactivating the Asian Fisheries Social Sciences Research Network (AFSSRN) section of AFS. Dr. Alice Joan G Ferrer of University of Philippines Visayas and Vice-President of AFS has kindly consented to coordinate the network. Members of AFS who are interested in membership of AFSSRN can enrol themselves in the network by sending a message of interest to Executive Secretary of AFS at info@asianfisheriessociety.org

NEWS FROM AFS SECRETARIAT

PAYPAL

- ◆ Please be informed that the Paypal System is now available to make membership payment in AFS website. Discussion is in progress for paying membership by credit card online.

AFS Journal

- ◆ The online manuscripts submission system for Asian Fisheries Society Journal already linked to the UPM 'ScholarOne' package. AFS members are requested to submit scientific manuscript to support the journal.
- ◆ The 50th Council Meeting was held on 28th April 2017 in Tainan, Taiwan.



UPCOMING CONFERENCES ORGANISED BY AFS & BRANCHES/NETWORKS

The 11th Indian Fisheries and Aquaculture Forum (11th IFAF)

The 11th Indian Fisheries and Aquaculture Forum (11th IFAF) with the theme “*Fostering Innovations in Fisheries and Aquaculture- Focus on Sustainability and Safety*” will be hosted by the ICAR- Central Institute of Fisheries Technology (ICAR-CIFT), at Kochi, Kerala, India during 21-24 November, 2017.

The Forum will be organized under the following technical sessions:

1. Fisheries Resources: Genetics, Biodiversity and Management
2. Fishing Systems for Sustainable Fisheries
3. Fishery Biology, Toxicology and Environment
4. Aquaculture production
5. Aquatic Animal Health Management
6. Adding Value to Fish: Avenues in Fish biochemistry and Fish Processing
7. Safe Fish: Quality, Risk Assessment and Regulations
8. Fishomics and Frontier Sciences for Blue Bio-economy
9. Socio-Economics, Gender, Capacity Building and Livelihood
10. Fisheries Trade, Policy and Governance

An international symposium on “*CLIMATE CHANGE AND FOOD SAFETY ISSUES*” is also scheduled to be held during the forum.

An interaction of the fishers, aquafarmers, entrepreneurs, scientists, policy makers and other stake holders will be organized during the forum to get feedback on the emerging policy issues and for reprisal of the concerns of the stakeholders in the industry.

The following awards will be presented during the forum:

1. Young Scientist Award (up to 10 awards): *Eligibility:* Scientists and Research Scholars below the age of 35 years (as on 30th June 2017) working in the field of fisheries related disciplines. The award carries a cash prize of Rs. 1000/- and a citation.

2. Prof. H.P.C Shetty Award: *Eligibility:* Persons involved in Fisheries research and development, below 50 years as on 30th June 2017. The award carries a cash prize of Rs. 10,000/- a medallion and an invitation to deliver keynote address at the forum.

3. Professors T.J. Pandian and A.J. Matty Award: *Eligibility:* Applicant should be below 35 years (40 years in the case of women) as on 30th June 2017, preferably carried out his/her work in India and has worked towards aquaculture development through research. Award carries a cash prize of Rs. 10,000/-, a medallion and an invitation to deliver keynote address at the forum.

4. Dr. Pillay Aquaculture Award: *Eligibility:* Outstanding work on any aspect of aquaculture (research/ extension/ development) carried out in India by an individual, group or organization (government or private). The award carries a cash prize of Rs. 25,000/- and a citation and invitation to deliver keynote address during the Forum.

5. Dr. M.C. Nandeesh Award: This award is given for the best innovation by a fish farmer. The award carries a cash prize of Rs. 25000 and a citation.

Details about the above awards can be obtained from the Secretary, AFSIB Building, College of Fisheries Campus, Kankanadi, Mangalore – 575 002, Karnataka, India. Applications for the awards should reach the Secretary latest by 30th June 2017.

6. Shri J.V.H. Dixitulu National Award for Outstanding work in Fisheries Extension /

Communication: *Eligibility:* Outstanding contributions in the field of fisheries extension / communication in India by individuals /institutions / NGOs. The award will carry a memento, citation and cash award of Rs. 15,000/- and invitation to present the work at the Forum. Applications for this award should be submitted to the Convener of the J.V.H. Dixitulu Award – The President, MBAI, CMFRI Campus, Post Box No. 1604, Kochi -682 018, Kerala, India. The last date for receiving applications is 15th August, 2017.

ONLINE SUBMISSION OF ABSTRACTS : Contributors can submit extended abstracts online at www.11ifaf.in

PUBLICATIONS OF THE FORUM: The papers presented in the forum will be subjected to scientific review for publishing in journals with high impact factor.

POST-FORUM TOURS

Kochi (colonial name Cochin) also referred to as the “Gateway to Kerala”, is a vibrant city situated on the south-west coast of the Indian. It is rated as the top three tourist destinations by the World Travel & Tourism Council and featured in National Geographic Traveller's '50 greatest places of a lifetime' and has a lot of tourist attractions and places to visit. Details of post-forum tours and other details will be uploaded shortly in the forum website www.11lifaf.in.

REGISTRATION

Overseas delegates

	Early bird registration fee	Late / spot registration
Members of AFS/AFSIB	US \$ 250	US \$ 300
Non-members of AFS/AFSIB	US \$ 300	US \$ 350

Indian delegates

	Early bird registration fee	Late / spot registration
Members of AFS/AFSIB	12000	13000
Non-members of AFS/AFSIB	15000	16000
Students	5000	6000
Observers & Spouses*	5000	6000

DATES TO REMEMBER

Submission of Abstracts : 01 April – 31 May 2017

Communication of Acceptance of Abstracts : 31 July 2017

Last date of Submission of Application for Awards : 30 June 2017*

Last date of Submission of Full Paper : 31 September 2017

11th Indian Fisheries and Aquaculture Forum : 21 - 24 November, 2017

(*Last date of Submission of Application for Shri J.V.H. Dixitulu National Award: 15 August 2017)

10TH SYMPOSIUM ON DISEASES IN ASIAN AQUACULTURE (DAA10)

The Fish Health Section of AFS is organising the 10th Symposium on Diseases in Asian Aquaculture (DAA10) with the theme “Enhancing Aquatic Animal Health Research and Services through Public-Private sector Partnerships” during 28 August – 1 September in Bali, Indonesia. The symposium is expected to cover a wide range of topics from classic parasitic, bacterial and viral diseases to emerging trends and cutting edge research in aquatic animal health. Trade displays will also be exhibited during the conference. Last date for registration: 31 July 2017. For additional information, please visit: www.daa10.org

NEWS

Norway mulls approving method of producing GM Salmon

The Norwegian Biotechnology Council is considering whether to approve a method of producing a genetically modified type of sexless salmon. The method developed by researchers from the Institute of Marine Research in Bergen implies editing the genes of salmon eggs so that the fish does not develop reproductive cells. The process is being regarded as genetic modification and requires special approval by Norwegian law. The researchers believe that the sterile salmon could help solve one of aquaculture problem of escaped farmed salmon. Last year around 185,000 farmed salmon and rainbow trout escaped from farms.

Source: http://www.intrafish.com/aquaculture/1212921/norway-mulls-approving-method-of-producing-gmo-salmon?utm_content=buffera4de2&utm_medium=social&utm_source=linkedin.com&utm_campaign=buffer

TiLV and its Impact on Tilapia Production

Tilapia, the second most farmed species after carps with global annual productions of 4.5 to 5 million tons is going through a crisis due to impact of Tilapia Lake Virus (TiLV) which is affecting both farmed and wild tilapia stocks. Some 18 scientists from 5 institutes in 4 countries are researching to find a solution for TiLV causing high mortalities in Israel, Colombia, Ecuador, Egypt and Thailand. Israel tilapia yields in recent years have plummeted by 85% and similar mortalities have been reported from Ecuador and Colombia. Israel scientists believe that TiLV can spread worldwide and cause havoc. The researchers are not only working to identify vaccine, but also trying to identify tilapia species/strains that are less susceptible to TiLV and hybridize them with commercially farmed fish.

While the Food and Agriculture Organization (FAO) says TiLV does not pose a risk to public health, it issued an alert through the Global Information and Early Warning System asking countries importing tilapia to intensify their diagnostics testing, enforce health certificates, deploy quarantine measures and develop contingency plans.

NEW PUBLICATIONS

Yemaya, ICSF Trust's Newsletter no. 54 on Gender and Fisheries

The International Collective in Support of Fishworkers Trust (ICSF Trust) has released the latest edition of Yemaya, its newsletter on gender and fisheries.

Yemaya No. 54, dated May 2017, features articles from India, Mexico and two analytical articles on SDG 5, while the editorial comment focuses on the significance of Sustainable development Goal 5 (SDG 5 Achieve gender equality and empower all women and girls). Meryl Williams in her article on Gender equal fisheries looks at what are the challenges we are facing in the path of achieving gender equality in fisheries and what should our priorities be?

Kyoko Kusakabe in her article identifies key priorities and challenges that lie in the path of achieving gender equality targets particularly in the high-poverty and increasingly resource-scarce context of Southeast Asian fisheries. Nikita Gopal in her article on seafood processing in Kerala (India) describes how the labour shortage has improved working conditions for women in seafood processing. From Mexico comes a piece that describes the key role women plays for generations in the running of large fish markets in Mexico.

A profile of Metty, from the Vembanad estuarine system in Kerala, India narrates the story of how fishing has been a mainstay for over four decades to her and the group. The What's New, Webby? column presents the recent initiative of CCRN website which uses an interactive map of the world to place spotlight on the amazing diversity of community efforts globally that are linking conservation and local livelihoods. The Q&A session with Ujjwala Patil, President of MMKS' Women's wing by Priyanka Mangela shows how the initiative of women's wing in mapping the existing fish markets in Mumbai and to include them in the Development Plan was useful.

The Milestones presents the Entebbe Declaration which states that women in African artisanal fisheries must claim full protection and equal representation and leading positions within the artisanal fisheries professional organizations, as well as equal participation in decision making processes for policies that affect their livelihoods.

Yemaya No. 54 can be accessed at: <https://www.icsf.net/en/yemaya/article/EN/54.html?limitstart=0>

Handbook on Gender Equitable Small-scale Fisheries

FAO has published a handbook in support of the implementation of the voluntary guidelines for securing sustainable, small-scale fisheries in the context of food security and poverty eradication. The publication can be downloaded: from: www.fao.org/3/a-i7419e.pdf

Handbook on Intensive farming of White Shrimp

World Aquaculture Society (WAS) has published the book "*Design and Operation of Super-Intensive Biofloc-Dominated Systems for Production of White Shrimp (Litopenaeus vannamei)*" by Tzachi M Samocha, David I Pragnell, , Terrel R Hanson, Granvil D Treeca, Timothy C Morris, Leandro F Castro and Nick Staresinic. For details visit www.was.org

UPCOMING CONFERENCES

Asian-Pacific Aquaculture 2017

Scheduled for July 24-27, 2017 in Kuala Lumpur, Malaysia. For details visit: www.was.org or contact worldaqua@aol.com

6th International Conference on Aquaculture and Fisheries

Scheduled for 7-9 August, 2017 in Rome, Italy. For details visit: <http://www.conferenceseries.com/agri-food-aqua-meetings>

Aqua Nor 2017 International Aquaculture Trade Show

Scheduled for 15-18 August 2017 in Trondheim, Norway. For details visit: <http://www.aqua-nor.no/?lang=en>

Certificate course in Aqua Nutrition

Kasetsart University, Thailand is organising a 5 day Certificate Course in Aqua Nutrition at their campus in Bangkok, during 21-25 August 2017. For more details and registration, please visit: www.progressus.asia; Phone: +66(0) 2653 1148

2nd Icelandic Fisheries Conference

Scheduled for 13-15 September 2017 in Iceland. For details visit: <http://www.icefishconference.com/>

Aquaculture Taiwan

The conference is scheduled for 28-30 September 2017 in Taipei, Taiwan. For details visit: www.aquaculturetaiwan.com/en-us/

The 10th Indo-Pacific Fish Conference

The 10th Indo-Pacific Fish conference is scheduled for 2-6 October 2017 in Tahiti, French Polynesia. For details visit: <https://ipfc10.criobe.pf/primitive-fishes-scientific-cultural-and-commercial-importance/>

8th International Conference on Fisheries and Aquaculture

The conference with the theme "New Era in Fisheries and Aquaculture" is scheduled for 2-4 October 2017 in Toronto, Canada. For details visit: www.fisheries.conferenceseries.com

XIV International Symposium on Aquaculture Nutrition

The symposium is scheduled for 4-6 October 2017 in Ensenada Baja California, Mexico

For details visit: www.sites.google.com/a/uabe.edu.mx/sina17

7th International Conference on Aquaculture and Fisheries

With the theme “*Recent Trends in Aquaculture Innovation*”, the conference is scheduled for 19-21 October 2017 in Rome, Italy. For details visit: www.aquaculture-fisheries.conferences.com

9th World Congress on Aquaculture and Fisheries

With the theme “*Recent trends in fisheries and aquaculture*”, the conference is scheduled for 23-24 October 2017 in Dubai, UAE. For details visit: www.aqua.conferenceseries.com

Aquaculture Vietnam

Vietnam's international aquaculture industry expo is scheduled for 25-27 October 2017 in Cantho, Vietnam. For details visit: www.aquafisheriesexpo.com/vietnam/en-us/

7th International Conference of Aquaculture Indonesia 2017

The conference is scheduled for 26-29 October 2017 in Solo, Indonesia.

For details visit: www.icaiaquaculture-mai.org

11th Indian Fisheries and Aquaculture Forum (11ifaf)

The Forum with the theme “*Fostering Innovations in Fisheries and Aquaculture with Focus on Sustainability and Safety*” is scheduled for 21-24 November 2017 in Kochi, India. For more information, visit www.11ifaf.in

11th Global Summit on Aquaculture and Fisheries

With the theme “*Innovative and Sustainable Aquaculture*”, the conference is scheduled for 24-25 May 2018 in Osaka, Japan. For details visit: www.aquaculture-global-summit.com

AFS MEMBERSHIP RENEWAL NOTICE

Dear AFS Members:

Thank you all AFS Members for your ongoing commitment and support towards the Society!

The Secretariat has started to update the Members details in database.

Therefore, the Secretariat requests all AFS members to update their membership dues and contact information, to the Secretariat via email at info@asianfisheriessociety.org

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SYNOPSIS OF PAPERS VOLUME 30 (ISSUE 1) :

ASIAN FISHERIES SCIENCE JOURNAL

Role of Extension Services with Special Reference to Livelihood Projects for Supporting a Community-based Marine Protected Area in Northern Luzon, Philippines

EMMA LEGASPI BALLAD, YOSHINORI MOROOKA and TERUYUKI SHINBO¹

Community-based management of marine protected areas (MPAs) is widely carried out in the Philippines as a coastal resource management initiative. However, the restrictions to areas used for this conservation programme have caused loss of job opportunities to villagers who mainly depend on coastal resources for a living. As an alternative, extension services with livelihood projects (e.g. aquaculture and hog raising) have been provided to the villagers. For investigating the role of extension services specifically as a support policy to the participation of villagers in MPA management, a household survey in the Casitan village in Cagayan Province, Philippines was carried out in March 2015 through one-on-one interviews facilitated by trained enumerators. A total of 100 respondents were selected by random sampling from the List of Registered Household Heads. Key informants' interviews were also conducted to harness the information gathered. The study revealed that support policies such as extension services with livelihood projects increase the tendency of villagers to participate in MPA management activities. The results imply that there is a need to strengthen strategies and programmes such as livelihood projects which can motivate the villagers' willingness to participate in MPA activities.

Morphometrics and Condition Factor Dynamics of the Goby *Stigmatogobius pleurostigma* (Bleeker 1849) During Dry and Wet Seasons in the Mekong Delta, Vietnam

QUANG MINH DINH

This study provided useful knowledge on the morphometrics, growth pattern and body condition dynamics of *Stigmatogobius pleurostigma* (Bleeker 1849). Three hundred fish (190 females and 110 males) were collected at Tran De and Nha Mat, the Mekong Delta from November 2015 to October 2016. Data analysis showed mean length and weight of *S. pleurostigma* were similar between females and males but significantly different between the dry and wet seasons. The weights of female and male *S. pleurostigma* could be estimated from a fish given length due to high coefficient values of the fish length and weight relationship (LWR). The length and weight relationship of females was similar to males at different sites in the dry-wet season pattern. *Stigmatogobius pleurostigma* displayed a negative allometric growth as the slope of LWR was significantly lower than the standard threshold of 3 and its growth parameters were not significantly different between gender, season and habitat. This goby could adapt well to the study region as its condition factor (K) was close to the better well-being value of 1 and its K value did not vary within gender, season and month. The results indicate that this gobiid fish live in a favourable environment and provide helpful information for this fish population management.

Population Biology of the Goby *Glossogobius giuris* (Hamilton 1822) Caught in the Mekong Delta, Vietnam

QUANG MINH DINH, Y NHU PHAN and DINH DAC TRAN

Glossogobius giuris (Hamilton 1822) is a commercial fish but there is no knowledge of its population biology. The present study was conducted along coastlines from Soc Trang to Bac Lieu, Vietnam to contribute new information on population biological characteristics of *G. giuris* based on length-frequency distribution analysis of 673 individuals. The von Bertalanffy curve parameters of this goby were $L_{\infty} = 20.53$ cm, $K = 0.56$ yr⁻¹ and $t_0 = -0.02$ yr⁻¹. The longevity (t_{max}) and the growth performance (Φ') were 5.36 yrs and 2.37 respectively. The fishing, natural and total mortalities of this fish population were 1.77 yr⁻¹, 1.40 yr⁻¹ and 3.17 yr⁻¹ respectively and its exploitation rate was 0.56. There were two recruitment peaks in late April and in September, and the analyses of relative yield-per-recruit and biomass-per-recruit gave $E_{max} = 0.633$, $E_{0.1} = 0.515$ and $E_{0.5} = 0.323$. This goby is a potential aquaculture candidate due to its high growth parameter. The fish stock is subjected to overexploitation so that the deep gill net mesh size should be increased and fish should not be caught during the recruitment period for sustainable fishery management.

Diet of Threatened Fish *Pethia shalynius* (Yazdani and Talukdar 1975) in the Umiyam River, Northeast India MAISNAM MANORAMA and SUNKAM NARAYANAIYENGAR RAMANUJAM

Relative length of gut, gastro-somatic index, index of preponderance and gut contents were analysed to determine the feeding habit of *Pethia shalynius* (Yazdani and Talukdar 1975), an endemic and threatened hill stream fish of Northeast India. A total of 577 individuals were collected from the Umiyam River, Barapani, Meghalaya for the present analysis. There were more than one relative gut lengths indicating an omnivorous form of feeding habit. Gastro-somatic index ranged from 1.645 ± 0.127 to 5.281 ± 0.499 . Index of preponderance showed that detritus (76.28%) was the most preferred food item followed by phytoplankton (16.75%), nematodes (2.90%), insects (1.84%), plant matter (1.18%), zooplankton (0.94%) and unidentified algae (0.10%). Gut content analysis revealed that the food composition consisted of detritus, phytoplankton, nematodes, zooplankton, insects, plant matter and unidentified algae. The present investigation of *P. shalynius* adds more information to our understanding of its feeding habit which will be useful for the culture of this fish, which is an omnivorous bottom feeder.

Viewpoint: On Pacific Bluefin Tuna (*Thunnus orientalis* Temminck and Schlegel 1844)

MERYL WILLIAMS

The taxonomy of *Thunnus thynnus orientalis*, once considered a subspecies of the Atlantic bluefin tuna *Thunnus thynnus* was discussed. The previous *T. thynnus orientalis* is now named *T. orientalis* (Temminck and Schlegel, 1844). According to Collette (1999, p. 156) "... the morphological differences between Atlantic and Pacific bluefins (shape of the dorsal wall of the body cavity in large specimens and numbers of gill rakers) coupled with the molecular data suggests separation of these bluefins as separate species, *T. thynnus* and *T. orientalis*." The Food and Agriculture Organization of the United Nations lists the English language common name of *T. orientalis* as "Pacific bluefin tuna". In a recent issue, Asian Fisheries Science published a paper by Seki et al. (2016) that assigned the species name *Thunnus thynnus* (Linnaeus 1758) and common name "northern bluefin tuna" to a study that probably concerned *T. orientalis*. The fish used in the study were collected in the wild from Nagasaki, Japan, thus precluding other bluefin tuna species. Information about the species name change and much other current knowledge about *T. orientalis* can be found in the recent full profile published online by AsiaPacific-FishWatch, a project of the Asian Fisheries Society (<http://www.asiapacfish.org/index.php/species/item/27-pacific-bluefin-tuna>).

SYNOPSIS OF PAPERS VOLUME 30 (ISSUE 2) :

ASIAN FISHERIES SCIENCE JOURNAL

Nutritional Profile of the Freshwater Edible Bivalve *Lamellidens corrianus* (Lea 1834) and its Relation to Water Quality in the Bhatsa River, India

ATUL GOVARDHAN BABAR, MADHURA SHIRISH JAYAWANT and SATISH PRAKASH PAWAR

The nutritional profile of an edible bivalve *Lamellidens corrianus* (Lea 1834) and the water quality of its habitat in the Bhatsa River, India at sampling sites in Vasind and Koshimbi villages were studied. Nutritional analysis of dry tissues (foot, gill and adductor muscle) of two different size groups (3.0–6.0 cm and 6.1–9.0 cm) showed they contain a high percentage of proteins followed by carbohydrates and lipids. Caloric content was found to be high in gills (2.31–4.43 Kcal.g⁻¹). The results indicate that there is potential for aquaculture of *L. corrianus* in the region. Total length-wet weight and total length-dry weight data of animals collected from Koshimbi showed positive allometric relationships. The average moisture content of the bivalves from Vasind and Koshimbi was estimated as 75.6±7.6% and 77.7±4.7%, meat yield as 26.5±3.1% and 24.9±0.5% and condition index as 8±3.5 and 5.7±2.2, respectively. The condition index revealed significant positive correlation with dissolved oxygen and pH, and negative correlation with conductivity, nitrate content, turbidity and total dissolved solids.

Development of Microsatellite Markers for the Assessment of Genetic Diversity in *Leiopotherapon plumbeus* Kner 1864

APRILL PUNONGBAYAN MANALANGI and MARIA GENALEEN QUIZON DIAZ

Microsatellite loci from an endemic Philippine silver perch, *Leiopotherapon plumbeus*, were isolated, characterised and used to develop simple sequence repeat (SSR) markers for genetic diversity analysis. Ten primer pairs were designed from a microsatellite-enriched library and polymorphic markers were used in the assessment of diversity of populations from three Philippine lakes (viz. Laguna de Bay, Taal Lake and Sampaloc Lake). Seven primers detected a total of 33 alleles and obtained polymorphism information content (PIC) values ranging from 0.12-0.75. The overall H_o and uH_e values across the populations were 0.247 and 0.494, respectively. Pair-wise population F_{ST} values showed low but significant differentiation while unweighted pair group method with arithmetic mean (UPGMA) cluster analysis revealed a closer relationship between populations from Taal and Sampaloc lakes. The markers used in this study can be used to jumpstart genetic-based breeding programmes and conservation strategies for the dwindling population of this species.

Seaweed Cultivation and Coastal Communities in Malaysia: an Overview

HANAFI HUSSIN and ABDULLAH KHOSO

This paper focuses on the social and economic aspects that have been covered in studies on the seaweed sector in Malaysia, and on other aspects that have been largely ignored. Seaweed cultivation activities have not only resulted in competition for marine spaces and resources, but have also led to changes in the values of communities, in that communities have compromised the social values of collective care in favour of individual economic benefits. Due to the increasing tension in seaweed areas, many families have stopped helping each other; however, this aspect has been ignored in academic research. The role of migrant workers in seaweed cultivation is another topic that remains unstudied. Also lacking was empirical evidence concerning the role of seaweed cultivation initiatives in reducing the economic poverty of the communities and improving level of income of coastal people. Finally, the paper raises some questions about the absence of data related to seaweed cultivating communities.

The Price of Fish Quality Attributes in the Province of Iloilo, Philippines: Estimates from Hedonic Pricing for Milkfish

REYNOLD DABI TAN, ISABELITA PABUAYON, AGNES ROLA, ZENAIDA M. SUMALDE and JOSE M. YOROBE

An attempt is made to explore different milkfish quality attributes and how consumers value each of these attributes. The research was conducted in the province of Iloilo, Philippines using primary data gathered by personal interview of 378 purchase-decision makers. Respondents were identified by two-stage random sampling. Hedonic price for each quality attribute was estimated using regression with robust standard errors. Attributes considered were: skin and outer slime characteristics; colour of gills, eyes and peritoneum; size; organic and place of origin labels; product form; provision of value-added services; and market outlet. It was shown that consumers accord different prices to each product attribute. A higher premium is placed on colour of the eyes, provision of value-added services, product processing and place where the product is sold. Awareness of specific features sought by consumers is vital in ensuring that these product specifications are met. Collaboration of supply chain participants is essential to meet the desired market specifications.

Characterisation of Non-tuberculous Mycobacteria Isolated from Apparently Healthy and Diseased Fresh Water Ornamental Fish in Sri Lanka

D.R. ANURUDDHIKA DISSANAYAKE, VINDYA PERERA, S.S. SAMANTHIKA DE. S. JAGODA, E.A. ROSHANI EDIRISINGHE and APPUDURAI ARULKANTHAN

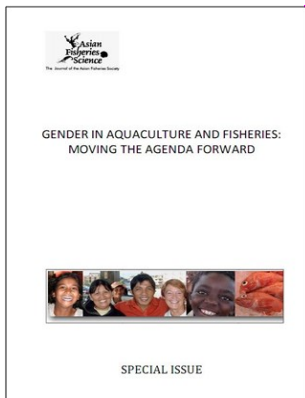
Eighty nine ornamental fish (55 guppies, 12 Siamese fighting fish, 10 Swordtails, six Platies and six goldfish) showing signs of mycobacteriosis, and 30 apparently healthy guppies collected from pet shops and fish breeding farms in Sri Lanka were examined and sampled to culture and isolate non-tuberculous mycobacteria (NTM). A total of 35 mycobacteria (28 diseased, 7 healthy) were isolated and subjected to biochemical identification and Polymerase Chain Reaction - Restriction Fragment Length Polymorphism (PCR-RFLP). Only 24 NTM isolated from diseased fish were identified at the species level, namely *Mycobacterium fortuitum* type I (n=7), *M. fortuitum* type II (n=3), *M. kansasii* type IV (n=5), *M. marinum* (n=8) and (n=1). Five of the seven NTM species isolated from apparently healthy fish were identified as *M. fortuitum* type I (n=2), *M. fortuitum* type II (n=1), *M. kansasii* type IV (n=1) and *M. marinum* (n=1). Irrespective of the NTM species involved, guppies mainly showed skeletal deformities while chronic ulcers were common in goldfish and fighting fish. Histopathologically, granulomatous inflammation was minimal in guppies. Since all four NTM species isolated are potentially zoonotic, it is necessary to implement appropriate biosecurity measures to prevent spread of these organisms.

Treatment of *Achlya* Infection in Freshwater Seabass, *Lates calcarifer* (Bloch 1790)

LAU LIK MING and KISHIO HATAI

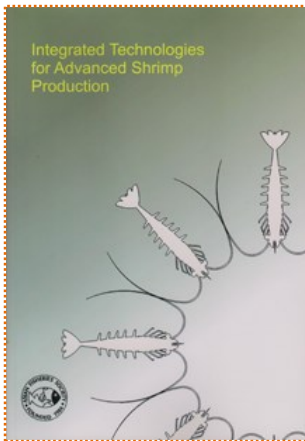
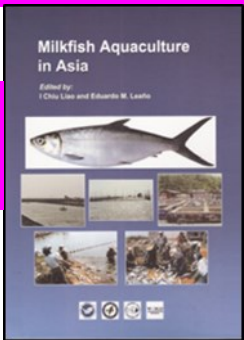
The efficacy of seawater of salinity up to 30 ppt and NaCl of concentration up to 3.0 % in treating a strain of *Achlya* sp. isolated from the tail fin of dying freshwater-reared seabass *Lates calcarifer* fry was investigated. Seawater of 15 ppt and above and NaCl of 1.5% and above inhibited hyphal growth of the mould while exposure to seawater at 30 ppt for 2 h or NaCl at 2.0 % for 2 h or 3.0 % for 30 min was effective in killing vegetative and zoosporic stages. Toxicity tests were conducted using Asian seabass and Nile tilapia *Oreochromis niloticus* fry with the same treatment levels of seawater and NaCl for up to 2 h and mortality was recorded at 24 h. There was no mortality in any of the Asian seabass fry groups, but 100% mortality was noted for Nile tilapia fry in 3.0 % NaCl for 1 and 2 h treatments. Seawater and NaCl were thus found to be effective for controlling the *Achlya* sp. strain in aquaculture, but toxicity to the target aquaculture species must be assessed to determine an effective treatment concentration and duration and to minimise toxicity to the fish fry.

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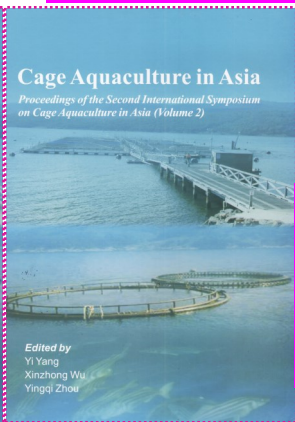
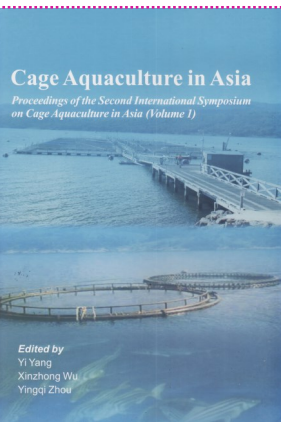
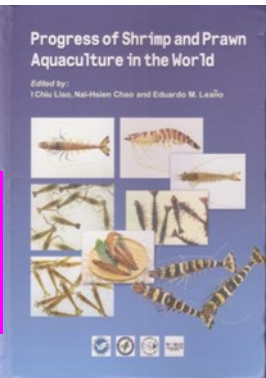
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