

The Asian Fisheries Society Year Book - 2019





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The Asian Fisheries Society (AFS) Year Book - 2019

Compiled and Edited by:

Dr. J.K. Jena, President, AFS

Assistance:

Mr. Manu V.K., CMFRI, India

Mr. Abhilash P.R., CMFRI, India

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President's Message

Dear Esteemed Members of AFS,

Greetings!!

The Asian Fisheries Society (AFS), during last 35 years of its glorious past, has proved to be a most vibrant International Scientific Society which stood tall in steering the fisheries and aquaculture development in the Asia-Pacific. The efforts of the Society in providing appropriate platforms for scientific deliberations and suggesting pragmatic roadmaps have been exemplary. The organisation of Asian Fisheries and Aquaculture Forum (AFAF) in every three years in different countries uninterruptedly in previous 11 occasions and several other events have provided unique opportunities for the scientific communities and all other stakeholders associated with the sector for scientific deliberations in various strategic areas.

As you are aware the 11th Asian Fisheries and Aquaculture Forum (11AFAF) was held at Bangkok, Thailand during August 3-7, 2016, which was highly successful in several fronts. The effort of Dr. C. Virapat, Director General, Network of Aquaculture Centres in Asia-Pacific (NACA) and Team NACA for their efforts in organisation 11AFAF was highly appreciable. The contribution of Chulalongkorn University and BITEC for organisation of the event was also praiseworthy.

During last three years of my tenure as the President of AFS, the Society successfully organised several international events, important of these include: 1) The 3rd International Symposium on 'Aquaculture and Fisheries Education (ISAFE3)' held at Mumbai, India during May 16-18, 2017 with the theme 'Fisheries Education for Sustainable Blue Economy', which was organised by the ICAR-Central Institute of Fisheries Education (CIFE), India in collaboration with AFSIB and Indian Fisheries Association (IFA); 2) The 6th International Symposium on 'Cage Aquaculture in Asia 2018 (CAA6)' held at Surat Thani, Thailand during October, 12-15 2018, which was jointly organized by the Department of Marine Science, Chulalongkorn University; National Science and Technology Development Agency and Prince of Songkla University, Surat Thani Campus, Thailand; and 3) The 7th Global Symposium on 'Gender in Aquaculture and Fisheries (GAF7)' held at the Asian Institute of Technology (AIT), Bangkok during October 18-20, 2018 with the theme 'Expanding the Horizons', which was



organised by the Gender in Aquaculture and Fisheries Section of the Society of AFS in collaboration with AIT and NACA. Further, the Fish Health Section of AFS successfully organised its triennial event, the 10th Symposium on Diseases in Asian Aquaculture (DAA10) with the theme 'Enhancing Aquatic Animal Health Research and Services through Public-Private Sector Partnerships' in Bali, Indonesia during 28th August to 1st September, 2017.

It is a great deal of delight for the Society to provide another unique platform for scientific deliberation on all relevant aspects of fisheries and aquaculture through organisation of the 12th Asian Fisheries and Aquaculture Forum (12AFAF) being organised with the theme 'Transforming Asian Fisheries and Aquaculture for Sustainable Production and Nutrition' at Iloilo, Philippines during 8-12 April, 2019 by the University of the Philippines Visayas Foundation Inc (UPVFI) in collaboration with University of the Philippines Visayas (UPV), Philippines. At this instance, I would like to place on record my great deal of appreciation and thanks to Dr. Alice Joan Ferrer, Vice-President and Incoming President (2019-21) of the AFS for her effort in organisation of 12AFAF.

The proposed celebration of the 35th Years of Foundation of AFS along with 12AFAF is another momentous occasion for all of us, those associated with the Society and all others participating in 12AFAF. During the period, all the Issues (March, June, September and December) of the Journal of the Society 'Asian Fisheries Science' were published as per the schedule. I would like to thank Dr. Mohamed Shariff, Editor of the Journal and his Team for their sincere effort in bringing enormous visibility to the journal through several innovative measures. Sincere thanks also to Dr. M.V. Gupta, Editor of the AFS Newsletter for bringing out the publications in time. The project AsiaPacific-FishWatch is progressing well, and for the same, I wish to convey my profound compliments to Dr. Meryl Williams for her contribution.

The Society has been engaged in encouraging young talents associated in fisheries and aquaculture research in the region by rewarding 'Kanazawa Research Fellowship Award' and the 'Yang Yi Young Scientist Fellowship', which would be conferred during the 12AFAF at Iloilo. During the period, 49th Executive Council (EC) meetings was held at Bangkok, Thailand (2016); 50th EC meeting at Taipei, Taiwan (2017) and 51st EC meeting was organised at Kuala Lumpur (2018) and several important decisions were taken for efficient functioning of the Society. I take this opportunity to thank Prof. Shuolin Huang, Immediate Past President; Dr. Alice J. Ferrer, Vice-President; Dr. Abol Munafi Ambok Bolong, Secretary; Dr. Aziz Arshad, Treasurer; Chairman & Members of different Functional Committees; and all other Members of EC for their continued efforts and support for the cause of the Society. On behalf of the Society, I would like to convey our sincere appreciation and gratefulness to Dr. Sirawut Klinbunga and Dr Meryl J. Williams for steering the organisation of CAA6 and GAF7.



I would also like to acknowledge the contribution of Dr. Gopal Krishna, Director, ICAR-CIFE, India and Dr. C.N. Ravisankar, Director, ICAR-CIFT, India for successful organisation of ISAFE3 and Indian Fisheries and Aquaculture Forum (IIFAF) respectively as the Conveners.

AFS also like to place on record the effort of its branches, viz., Asian Fisheries Society Indian Branch (AFSIB) and Asian Fisheries Society Taiwan Branch (AFSTB) in particular for conducting several scientific events of national and regional importance. Formation of a new Section of the Society, i.e. the Gender in Aquaculture and Fisheries Section and revival of Social Science Section (AFSSRN) are other significant milestones which would go longway in steering the societal and gender issues associated with fisheries and aquaculture in the region.

The 51st Council Meeting of AFS also took a significant milestone decision on the provision of 'Permanent Active Member', which would definitely help in enhancing membership base and also help the members to keep connected with the Society. The spread of the message of AFS has been possible only due to the dedication, commitments and hard work of all the Members of the preceding Executive Councils since its inception in 1984 and your continued faith and guidance as the honoured members of the Society. At this moment, I convey my heartfelt thanks to the Past-President, Dr. Derek Staples; Immediate-Past President, Prof. Shuolin Huang; and all other Members of the 11th Executive Council of AFS for keeping confidence on me and unanimously electing me as the President of the Society for the period 2016-19. I take this opportunity to convey my gratitude to all of you and all the Members of the 12th Executive Councils, in particular, for continued advice, guidance and confidence rendered upon me, not only in effective functioning of the AFS, but also taking the Society to the present level of vibrancy. I consider myself privileged and honoured in having opportunity to be associated with this prestigious scientific organization as the President. I sincerely wish that with your direction and cooperation the Society would reach the crest under the leadership of new president, achieving the set objectives of the Society.



(J.K. Jena)
President
12th AFS Council

Incoming President's Message

Dear Members of the Asian Fisheries Society,

Greetings!

I am both humbled and honoured to be given the opportunity to give this address to you all. First, I would like to express my sincere thanks to the 12th Asian Fisheries Society (AFS) Council President, Dr. J.K Jena, 12th AFS Council Immediate Past President, Prof. Shoulin Huang, and to all the members of the 12th AFS Council for unanimously voting for me in April 2017 as the Incoming President of the AFS for 2019 to 2022. I am grateful for the confidence and support you have in me.

I also take this opportunity to recognize and give my sincere appreciation to Dr. Meryl Williams (AFS Honorary Life Member and Chair of Gender in Aquaculture and Fisheries Section of AFS), Dr. Derek Staples (AFS Honorary Life Member and AFS President, 2011-2013), and to Dr. Chan-Lui Lee (AFS Honorary Life Member and AFS President, 2004 – 2007) for the support and advices. My utmost sincere thanks to Dr. Ida M. Siason (AFS President, 2009 to 2011) who encouraged me to join AFS as a member in 2004, to accept the nomination to the AFS Council in 2013, and for the continued support and guidance. I consider my membership in AFS, and the opportunity to serve AFS as a councillor and as an officer as privileges.

AFS is a prestigious scientific society founded in 1984 by seven scientists in Southeast Asia. It has grown and expanded through the years and its impact felt. After 35 years, AFS remains a strong and respected organization of fishery and aquaculture scientists, researchers, technicians, and other stakeholders, not only in Asia-Pacific region, but all over the world. The AFS journal, Asian Fisheries Science, first published in 1987 remains a highly demanded and respected journal after 32 years. For years, the AFS has provided venues through the triennial Asian Fisheries and Aquaculture Forum (AFAF), International Symposium for Aquaculture and Fisheries Education (ISAFE), and International Symposium on Cage Aquaculture in Asia (CAA), where recent trends and on-going research and technology in the region are shared and discussed. Similarly, the Gender in Aquaculture and Fisheries Section of AFS (founded in January 2017) through the Gender in Aquaculture and Fisheries Symposium (GAF) and many other activities has provided venues where gender issues in fisheries



and aquaculture are discussed and addressed. The Fish Health Section of AFS (formed in January 1989) has provided a venue through the Symposium on Diseases in Asian Aquaculture (DAA) for knowledge on fish health management to be shared and discussed towards contributing to a sustainable aquaculture in the region. The Asian Fisheries and Social Science Research Network (AFSSRN) has recently been revived and slowly but definitely will be back better in the next years. For all these AFS achievements, we give thanks to all AFS members for the support, to all the past AFS Presidents, other officers and councillors for nurturing AFS to what it is today, to the AFS Editorial Board for the commitment and hard work, and to all the affiliates, networks, and friends of AFS for the support.

On another note, AFS need your support more than ever. AFS now exists in more challenging times. There are new and bigger challenges in the fishery and aquaculture in the region. There are more professional organizations founded and more fisheries and aquaculture fora being organized. With your support, AFS can face these challenges and maintain its relevance and vital role in the fishery and aquaculture in the Asia-Pacific Region.

I request for your continued and stronger support to AFS. In the next three years, I hope AFS will be bigger and stronger with more Permanent Active Members, more organizational members, and more members in the three sections - AFSSRN, GAFFS, and Fish Health, and in the different branches - Taiwan, India, and Japan. We hope to bring in more capacity building programs to the members in the next three years.

We will see each other again in AFS events in 2020 in DAA11; in 2021 in ISAFE4 in Taiwan, CAA8 in China, and GAFFS8 (venue to be announced); and, in 2022 for the 13AFAF in Taiwan.

Thank you.



ALICE JOAN DE LA GENTE FERRER, PhD
Professor
University of the Philippines Visayas

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1. Asian Fisheries Society - A Prelude

The Asian Fisheries Society (AFS), a non-profit scientific society, was founded by the fishery professionals in Asia in 1984. The Society aims at promoting co-operation and networking between all stakeholders involved in fisheries sector, including those in production, research and development in Asia. The ultimate objective of the Society has been to enhance the food security and opportunities for income generation for fishers and fish farmers in the region.

The history of AFS goes back to May 1983 when seven fisheries scientists from Southeast Asia met in Manila to organize a group aimed at improving interaction and cooperation among fisheries scientists and institutions within the region. At that time, there was no common forum for Asian fisheries scientists to consider and express their views on important issues of mutual concern. With virtually no formal mechanism through which scientists could link up regularly to share information, the process of regular exchange and research collaboration proceeded in an unsystematic and ineffective manner.

The purpose of the 1983 meeting was to plan a regular scientific forum. Initially, this group of seven conceived only a Southeast Asian forum but it grew to cover a wider geographic area. This zone has no cohesive name as far as communities of nations are concerned but the group finally decided to use the term 'Asian Fisheries Society'. In the 2007 revision of the AFS Constitution, to provide clarity, the 8th AFS Council defined the footprint of the Society as covering the Asia-



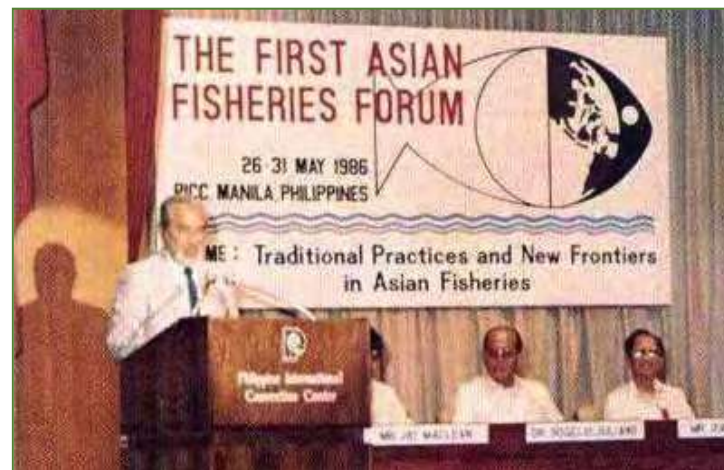
The group that gathered in Manila on 23-24 May, 1983 at the invitation of the ICLARM to discuss the need for a regional forum and society. L-R: Dr. Richard Neal (ICLARM); Dr. Muhammad Eidman (Indonesia); Dr. Chua Thia-Eng (Malaysia); Dr. Twesukdi Piyakarnchana (Thailand); Dr. Bruce Morton (Hong Kong); Dr. Roger Juliano (Philippines); Mr. Jay Maclean (ICLARM) acted as secretary and Dr. I Chiu Liao (Taiwan).

Pacific region stretching from Turkey and Saudi Arabia in the west to Japan in the east, and from the Russian Federation in the north to New Zealand in the south.

The idea of forming a society came about as the next logical step: it would ensure continuity of the regional meetings and provide a more organized system for the conduct of activities. The group formed a Foundation Council for the Proposed Asian Fisheries Forum and the Asian Fisheries Society and co-opted a few more colleagues to make the Council more representative of the entire Asian fisheries community.

The enthusiastic response from all corners encouraged the Foundation Council to plans for organisation of the First Asian Fisheries Forum. Further, the constitution of the Asian Fisheries Society was drafted and guidelines for the Forum and Society activities were drawn. In the historic meeting held on 02 May 1984, the constitution of the Society was adopted. The Society then held its first general assembly and elected its councillors and first set of officers. Dr. Chua-Thia Eng was elected as the Founder Chairman.

Generous support received from organisations like the International Center for Living Aquatic Resources Management (ICLARM – currently 'WorldFish'), Malaysia; International Development Research Centre, Canada (IDRC); University of Tokyo, Japan; University of Hong Kong; University of the Philippines Visayas (UP Visayas) and Australian Centre for International Agricultural Research



Opening Ceremony of the 1st Asian Fisheries Forum



Seminar at Los Baños, Philippines in May 1984. L-R: Drs. Juliano, Neal, Chua, Hirano and Chancellor Rola

(ACIAR) made it possible to organise the first few crucial meetings of the Society. After two years of meticulous planning and preparations the Society organised its first major event, the First Asian Fisheries Forum during 26th-31st May 1986 in Manila, Philippines. In 1987, the Society was registered as a non-profit, non-stock corporation under Philippines laws.

The Asian Fisheries Society, Inc. served as the legal arm of the Society. Since then, the Society did never look back and undertook all necessary tasks to nurture the Society, including securing financial stability, organising the triennial Asian Fisheries Forum, increasing membership and expanding its outreach.



Group photograph of the May 1984 meeting at Los Banos
L-R: Drs. Chua, Morton, Liao, Neal, Mr. Maclean, Drs. De Silva, Davy, Lam, Gomez, Hirano, Juliano and Chancellor Rola. Photographer: Dr. Piyakarnchana



Drs. Chua (L) and Liao (R)

2. Objectives of the Society

The Primary Objectives of the Society are:

- To promote effective interaction and cooperation among scientists and technicians involved in fisheries and aquaculture research and development in Asia with a view to encouraging and facilitating research activity complementation, sharing of information and publication of research results;
- To create and propagate awareness of the importance and ways of sustainable utilization, cultivation, conservation and development of aquatic resources in the region; and
- To promote the establishment of sections and local branches of the Society and national fisheries societies and to seek affiliation and cooperation with societies, organizations and institutions having similar objectives.



These objectives are to be pursued by:

- Providing an effective mechanism, in the form of an Asian fisheries journal and an e-Newsletter for the dissemination of research and other relevant information on fisheries and aquaculture;
- Holding, on a regular basis, an Asian Fisheries Forum as a gathering of scientists, technicians and interested stakeholders, who in their professional capacities, can freely discuss broad issues and specific topics related to fisheries and aquaculture, and publishing the proceedings if deemed necessary;
- Providing further opportunities, as appropriate, for fisheries scientists, technicians and stakeholders to foregather by the holding of regular meetings, symposia, workshops, conferences and other gatherings; and
- Addressing important issues related to fisheries and aquaculture interests in the region

3. Our Society Members

Since establishment of Asian Fisheries Society in 1986 as many as 3071 people have joined the Society. Beginning with only 14 charter members, although the Society had nearly 700 members from 42 countries by the end of its second year, the number of active members fluctuated in subsequent years. Events like AFAF stimulated a significant increase in memberships. Promotion through Country Branches has been also helpful in increasing the memberships. The memberships duration indicated by the amount of annual membership fee also varied greatly in different years. While several members did not sustain their memberships, some of them rejoined the Society. The AFS members have been consistently dominated by full member category, while enrolment of student members has remained significantly low. During 51st Council meeting of AFS held at Kuala Lumpur, Malaysia on 19th April 2018, the Council approved a new provision for any member to become a **Permanent Active Member (PAM)** by paying membership fee continuously for 15 years. The new terms and conditions for this membership came into effect from 20th April, 2018.

- For the members from Category 1 countries (see AFS website for list of countries), in order to become a Permanent Active Member (PAM), the fee for new member is USD 250 (Yearly membership fee USD 15 x 15 years + USD 25 as joining fee).
- For the members from Category 2 countries (see AFS website for list of countries), in order to become a Permanent Active Member (PAM), the fee for new member is USD 410 (Yearly membership fee USD 25 x 15 years + USD 35 as joining fee).

This also provided option for the current members to become PAM with following conditions:

- One must have been active members with continuous full payment of membership dues for the past 15 years.
- For those with unpaid years, he/she must pay the total cumulative unpaid membership fees plus any other balance in order to complete the required 15 years of continuous membership to be eligible for Permanent Active Membership.

It was also decided that the Permanent Active Members only would be provided with the photo ID cards.

Membership Categories of AFS:

- **Full members:** Individuals who are or have been engaged in fisheries and aquaculture research and development, and are interested in furthering the objectives of the Society
- **Student members:** Individuals who are studying relevant subjects at the post-secondary level and have not yet completed their award requirements
- **Permanent Active Member (PAM):** Individuals by paying membership fee continuously for 15 years
- **Institutional members:** Organizations which support the objectives of the Society
- **Honorary Life Membership:** Conferred upon an individual by virtue of distinguished professional achievements in a field of fisheries and aquaculture or meritorious service to the Society. Such membership to be nominated by full members shall have to be approved by the Council
- **Patrons:** Persons who support the objectives of the Society
- **Charter members:** Those (14) who signed the original Society's constitution

As on December 2018, the Society has 652 registered members, which includes 14 Honorary Life Members, 57 Permanent Active Members, 272 active Full Members and 309 Full Members whose membership fee is due to be paid. At present, most of the Permanent Active Members belongs to India (19), Philippines (11), Thailand (9) and Malaysia (6).

4. Honorary Life Members of Our Society

The Society recognized its first two Honorary Life Members in 1986. They were Dr. Shao-Wen Ling, known to be the Father of *Macrobrachium rosenbergii* (giant freshwater prawn) culture and Dr. Katsuzo Kuronuma, a well-known Japanese fisheries scientist. Since then the honor has been bestowed further on 15 more prominent scientists in recognition of their contribution to Asian fisheries science and the AFS.

During the 7th Asian Fisheries Forum in Penang, Malaysia in 2004, Dr. Meryl Williams was awarded the Honorary Life Member in recognition of her contributions and achievements in fisheries sciences and as the Director General of WorldFish Center.

Dr. Brian Davy and Dr. Chan-Lui Lee were bestowed with the Honorary Life Members awards during the 8AFF in Kochi, India held in 2007 for their services to the Society and to Asian fisheries sciences. Dr. Brian Davey, one of the original Councilors and supporters of AFS, was recognized for his distinguished achievements in pioneering and extensive research in fisheries science and to his valuable contributions in coastal area management, environment and marine pollution. Dr. Chan-Lui Lee, the President at the time, was recognized for his outstanding leadership as President of AFS from 2004-2007 and

AFS Honorary Life Members		
1986	:	Dr. Shao-Wen Ling
	:	Dr. Katsuzo Kuronuma
1992	:	Dr. Yasuo Ooshima
	:	Dr. Syed Zahoor Qasim
1995	:	Dr. I-Chiu Liao
1998	:	Dr. Thia-Eng Chua
	:	Dr. T.V.R. Pillay
2001	:	Dr. Edgardo D. Gomez
2004	:	Dr. Meryl J. Williams
2007	:	Dr. Chan-Lui Lee
	:	Dr. Brian Davy
2009	:	Dr. E. Akio Kanazawa
2011	:	Beijing Yu Jing Biotech Co.Ltd., China
2013	:	Dr. Sena S. De Silva
	:	Dr. Mohan J. Modayil
2016	:	Dr. Derek Staples

for successfully steering the society into sound operational strength and promoting activities that strengthen fisheries professionals. An Honorary Life Member Award was posthumously awarded to Prof. Emeritus Akio Kanazawa in 2009. The first institutional member to be awarded an honorary life award was Beijing Yu Jing Biotech Co. Ltd., China in 2011. Dr. Sena S. De Silva and Dr. Mohan J. Modayil were subsequently awarded with this honour in 2013 during 10AFAF.

During 11AFAF held at Bangkok Dr. Derek Staples, Immediate Past President of AFS was awarded with Honorary Life Member.



1. Honorary Life member, Dr. Shao-Wen Ling receives plaque of recognition during the 1st General Assembly in 1986
2. Dr. Katsuzo Kuronuma, well known Japanese fisheries scientist, receives a plaque of recognition as Honorary Life Member of the Society during the 1st General Assembly in 1986
3. Beijing Yu Jing Biotech Co., Ltd receives a plaque of recognition as Honorary Life Member of the Society during the 9AFAF in 2011

5. Award Winning Members of Our Society

Gold Awards of AFS are bestowed to individuals or institutions in recognition of their significant contribution to the development of the Society.

In October 1995, the first Gold Award was given to Founding President, Dr. Chua Thia-Eng, for unselfishly contributing his scientific and managerial expertise in steering the Society to its international and respectable stature.

Dr. Liu Hsi-Chiang received the second Gold Award in November 1998 in recognition of his managerial expertise, which helped in the development of the Society and for his untiring efforts to solicit financial support for various Society activities. The other recipients of the award have been Prof. Akio Kanazawa, the founder of the Kanazawa Foundation and Dr. Sena De Silva for his role as the Editor of the Asian Fisheries Science Journal (in 2004). Dr. Modadugu V. Gupta and Dr. M.C. Nandeeshha were bestowed with the Gold Awards for their outstanding contributions to Asian fisheries, aquaculture and Society in 2007.



1. Asian Fisheries Society Gold Awardees in 1998, Dr. Liu Hsi-Chiang (L) and Prof. Akio Kanazawa (R)
2. Dr. Chua Thia-Eng receiving Gold Medal Award from former presidents Dr. Liu Hsi-Chiang and Prof. Mohamed Shariff
3. AFS presented a Gold Medal award to UPM for their contribution to the Society in November 2008

In 2009, Dr. Ram Bhugel of the Asian Institute of Technology (AIT) and Prof. Pan Ying Jie of the Shanghai University were recognized for their contributions to the International Symposium on Aquaculture and Fisheries Education (ISAFE), held in Bangkok, Thailand. At 9AFAF in Shanghai in 2011 Prof. Yang Yi (posthumous), Prof. Mohan Joseph Modayil, Dr. Chan Lui Lee, Mr. Michael Bernard New and Prof. Ida Siason were awarded Gold Awards.

During 10AFAF held at Yeosu, Korea in 2013 Gold award was conferred to Dr. Mohamed Shariff for his excellent service as Editor-in-Chief of AFS Journal and improving the standard of the Journal, Dr M. C. Nandeesh (posthumous) for his leadership to the Indian Branch of AFS and dedication and support to AFS and Poh Sze Choo for his contribution as the Assistant Editor and for his untiring work in editing and improving the standard of the AFS Journal and assistance to AFS gender activities.

During 11AFAF held at Bangkok, Thailand in 2016 Gold award was conferred to Dr. A. Gopalakrishnan, Councillor from India and Convener, CAA5; Dr. Hillary Egna; Dr. Alice Joan Ferrer, Councillor from Philippines; and Dr. Cherdsak Virapat, Director General, NACA and Convener 11AFAF for their meritorious contributions to the Society.



Presentation of the AFS Gold Medal Awards at 9AFAF



Dr. A.Gopalakrishnan receiving Gold Award

The WorldFish Center was the first institution to be bestowed with the Gold Award in 2007 for its roles in eradicating poverty, supporting the Asian fisheries science and development, and the AFS activities since its founding in 1984. In 2008, the University Putra Malaysia was also recognized for its generous contribution to AFS for hosting the new Headquarters on its campus. The AIT was awarded a Gold Award in 2009 for its support to AFS, as a partner in AFS activities in Asia-Pacific, hosting ISAFE and for its role in training many scientists. At 9AFAF in 2011 the Universiti Putra Malaysia (UPM), the Mekong River Commission (MRC), the Network of Aquaculture in Asia-Pacific (NACA), FAO Department of Fisheries and Aquaculture, and Zhejiang Kesheng Feed Co. Ltd, China were recognized with Gold Awards. During the CAA3 held at Kuala Lumpur during 17th-19th November, 2011; Malaysian Fisheries Society, Uni-President Vietnam and Department of Fisheries were awarded the Gold Awards of AFS. Further, Australian Center for Agriculture Research was awarded with Gold award during 10AFAF held at Yeosu, Korea for its Organisational support to AFS.

During 11AFAF, Merit Awards of AFS were also given to nine individuals in recognition of their contribution to the Society. They are, Dr. Wimol Jantrarotal, Dr. Sirawut Klinbunga, Dr. Thaithaworn Lirdwitayaprasit, Dr. Piamsak Menasveta, Dr. Chan-Lui Lee, Dr. Meryl Williams, Dr. Mohan Joseph Modayil, Dr. Tina Zhou, and Dr. Charoen Nitithamyong.



Dr. Sirawut Klinbunga receiving AFS Merit Award



Dr. Meryl Williams receiving AFS Merit Award



Dr. Mohan Joseph Modayil receiving AFS Merit Award

6. Linking Fisheries Scientists

6.1 The Asian Fisheries Forum (AFF)

The Society holds a triennial forum, Asian Fisheries Forum (AFF), among Asian countries to promote scientific interaction amongst members and the community. By bringing together aquaculture and fisheries scientists and stakeholders from the region the Forum provide a venue to discuss regional priorities, common problems and research findings.

Each Forum updates the members of recent trends and ongoing research results in the region. It provides a unique opportunity to learn and evaluate research and also provides the much-needed scientific advice to policymakers, managers and planners. Young researchers are encouraged to take active part and interact with the large number of fisheries scientists in attendance. Towards this aim, the Society helps young scientists to secure travel support to attend the Forum and can provide assistance through its Kanazawa Research Fund. The published proceedings of each Forum represent a state-of-the-art reference for fisheries and aquaculture research in Asia and are invaluable references for all fisheries scientists, industry and policy makers.

- **The 1st Asian Fisheries Forum (1AFF)** was held in May 1986 at the Philippines International Convention Centre (PICC) in Manila, Philippines with 408 participants from 27 countries in which total of 230 papers presented. The Forum focused on the theme "Traditional practices and new frontiers in Asian fisheries".



- **The 2nd Asian Fisheries Forum (2AFF)** was held in April 1989 in Tokyo, Japan, which brought together 431 participants from 27 countries.
- **The 3rd Asian Fisheries Forum (3AFF)** was held at Singapore's World Trade Center in October 1992, which attracted 684 participants from 53 countries. It featured a series of Special Symposia and Fish Asia 1992, a major trade exhibit of fishery and aquaculture technology.
- **The 4th Asian Fisheries Forum (4AFF)** was held during 16th-20th October, 1995 in Beijing, China, in which over 600 delegates from 52 countries and territories participated.



2nd Asian Fisheries Forum



3rd Asian Fisheries Forum



4th Asian Fisheries Forum

- **The 5th Asian Fisheries Forum (SAFF)** was held during 11th-14th November, 1998 in Chiang Mai, Thailand, where the Society gathered over 700 workers in fisheries from all over the world, bringing forth ideas and experiences on how best to address the issues on fisheries and food security beyond the year 2000.



5th Asian Fisheries Forum

- **The 6th Asian Fisheries Forum (6AFF)** was held during 25th-30th November, 2001 in Kaohsiung, Taiwan with over 550 participants from 33 countries.



6th Asian Fisheries Forum

- **The 7th Asian Fisheries Forum (7AFF)** held in Penang, Malaysia from the 30th November-4th December, 2004 received more than 800 participants from 41 countries. The theme of the Forum focused on “New Dimensions and Challenges in Asian Fisheries” in the 21st century.



7th Asian Fisheries Forum

- **The 8th Asian Fisheries Forum (8AFF)** was held in Kochi, India during 20th-23rd November, 2007. The Forum theme was ‘Fisheries and Aquaculture: Strategic Outlook for Asia’. More than 1000 scientists from 33 countries participated in the deliberations and a total of 895 abstracts were received for presentation. Special symposia were held on “Gender and Fisheries” and “Current Status of Shrimp Farming in Asia” and a Special Session on “Fish Health”.

To acknowledge the increasing role that aquaculture is playing in Asian fisheries, the Forum's name was changed to **Asian Fisheries and Aquaculture Forum (AFAF)** during the 8th Council term and endorsed by the AFS General Assembly in 2007. Under the new EOI process, the Shanghai Ocean University (SHOU) won the bid to host the 9AFAF which was held on April 2011.

8th Asian Fisheries Forum

- The 9th Asian Fisheries and Aquaculture Forum (9AFAF)** was held in the Lingang Campus of SHOU, Shanghai, China from the 20th-23rd April, 2011. The Forum hosted two major Symposia, i) The 4th International Symposium on Stock Enhancement and Sea Ranching (4th ISSSR) and ii) The 9th International Symposium on Tilapia Aquaculture (9th ISTA). Other major meetings held in conjunction with the 9AFAF were the “3rd Special Global Symposium on Gender in Aquaculture and Fisheries (GAF3)”, a special session on "Strengthening European-Asian Partnership" and the FAO funded session on "Aquatic Genetic Resources for Sustainable Fisheries and Aquaculture". The AquaFish CRSP, USA also joined the 9AFAF by holding its Board and Annual Project Staff Meeting during the 9AFAF. The 9AFAF is one of the most successful forums held by the AFS. The forum was attended by more than 750 participants from over 45 countries. Its Trade Exhibition attracted 34 exhibition booths, 14 of them coming from overseas.





9th Asian Fisheries and Aquaculture Forum

- **The 10th Asian Fisheries and Aquaculture Forum (10AFAF)** was held at the Ocean Resort, Yeosu, Korea from 30th April to 4th May 2013. 10AFAF with the theme “*Blue Waters and Green Fisheries*” attracted some 680 participants including 230 overseas participants. A total of 169 oral presentations and 155 posters from 27 countries were presented during the Forum. Several potential participants could not attend the Forum due to the disturbing political situation at that time between the North and South Korea.

There were 11 sessions during 10AFAF, which included, Aquatic animal nutrition, feed and feeding; Aquaculture production system; Fish processing; Fisheries and policy, social science, economics and livelihood; Fish for human nutrition and health; Environment impacts, pollution and ecotoxicology; Biodiversity, genetics, biotechnology and breeding, conservation; Fishing gear and technology; Fisheries assessment and aquatic resources management, ecology; Aquatic animal health and management; and Shrimp and other crustacean aquaculture.



There were three Keynote lecturers during the Plenary Session by Dr Chan-Lui Lee, Past President of AFS; Dr Sang-Gyu Sohn, Vice President, NFRDI, Korea and Prof Glen Hurry, Western and Central Pacific Fisheries Commission. Two Special Sessions viz., 4th Global Symposium on Gender in Aquaculture and Fisheries (GAF4) and 4th International Symposium on Cage Aquaculture in Asia (CAA4) were also conducted along with the 10AFAF. Further, in conjunction with the Forum, a trade exhibition was also held, possessing 24 booths from 19 companies. The exhibition saw various Companies and fisheries societies displaying the latest information in equipment and technology in the field of aquaculture and fisheries.



10th Asian Fisheries and Aquaculture Forum

- **The 11th Asian Fisheries and Aquaculture Forum (11AFAF)** with the theme 'Asian Food Security for the World' and 'ASEAN Fisheries and Aquaculture Conference and Exposition 2016' were organized in a single platform at Bangkok, Thailand during 3rd-7th August, 2016. The Asian Fisheries Society (AFS), the Network of Aquaculture Centers in the Asia-Pacific (NACA) and the Department of Fisheries, Thailand had come together to convene these events and exposition. The 11AFAF served as an international platform for the scientists, researchers, students, policy makers and industry partners from all over the world who participated in these important events and exchanged their ideas and discussed all relevant issues pertaining to sustainable fisheries and aquaculture in the Asia-Pacific Region. The Scientific Sessions of the Forum covered under Seven Thematic areas as given below.



Inaugural Ceremony of 11AFAF

Theme 1: Governance

Chair : Prof. Yuan Xinhua, Deputy Director, FFRC,
People's Republic of China

Co-chair: Dr. Alice Ferrer, University of the
Philippines

Altogether 18 papers were presented in four technical Sessions under this theme.

Theme 2: Education & training

Chair : Dr. Sirawat Klimbunga, Chulalongkorn
University, Thailand

Theme 3: Sustainable intensification of aquaculture

Chair : Mr. Miao Weimin, FAO RAP, Thailand

Co-chair : Dr. Joykrushna Jena, India

There were 59 oral presentations under the Theme through 9 sessions. The presentations covered subject areas of feed and nutrition, health and disease, genetics, seed production and related biology and farming systems/practices.

Theme 4: Response to Impacts of Climate Change

Chair : Dr. Poh Poh Wong, Visiting Associate Prof., University of Adelaide, South
Australia

Co-chairs: Prof. Atsushi Hagiwara, Nagasaki University, Japan, and Mr. Boonsong
Sricharoendham, Senior Expert in Fisheries Ecology, Thailand.

As many as ten papers were presented in three sessions focusing on climate change impacts.



Theme 5: Sustainable fisheries

Chair : Dr. Derek Staples, Fisheries Consultant, Australia

Co-chair: Prof. Charoen Nitithamyong, Chulalongkorn University and
Ms Praulai Nortman, DOF, Thailand

A total of 37 papers were presented in the areas of taxonomy and stock structure, ecology and biology, socio-economics, resource assessment and management.

Theme 6: Seafood, post-harvest technology and food safety

Chair : Prof. Chen-Huei Huang, National Chiayi University, Dept. Aquatic Biosciences

Co-Chair: Ms. Wanwipa Suwannarak, Sr Expert, DOF, Thailand

23 abstracts were presented as oral presentation covering the areas of marketing, food technology, quality assurance and food safety.



Theme 7: Gender in Aquaculture and Fisheries

The papers under this theme were presented in a separate event as '6th Global Symposium on Gender in Aquaculture and Fisheries (GAF6)'.

There were five Keynote presentations during the Forum by eminent experts from all over the Globe as follows:

Keynote 1: Countering food security threats with genetic improvement: ASEAN aquaculture scenarios by Prof. Uthairat Na-Nakorn, Department of Aquaculture, Faculty of Fisheries, Kasetsart University, Thailand

Keynote 2: Ecosystem-based adaptation to coastal erosion and sea-level rise by Associate Professor Wong Poh Poh, School of Social Sciences, University of Adelaide, Australia

Keynote 3: A roadmap to fisheries sustainability: Fantasy or reality? By Professor Ratana Chuenpagdee, Department of Geography, Memorial University of Newfoundland

Keynote 4: Genetics of growth and disease in aquaculture: The future by Prof. Roger Doyle, President, Genetic Computation Ltd., Canada

Keynote 5: Sustainable fisheries in the ASEAN context by Dr. Derek J Staples, Fisheries Consultant, Macleay Island, Queensland, Australia

There were Five Special Sessions organized covering special areas of interest, which are as follows:

- Small-scale Fisheries & Food Security: Cross-pollination and Synthesis
Organized by: Dr. Moenieba Isaacs, University of Western Cape, South Africa and Dr. Kungwan Juntarashote, Kasetsart University, Thailand
- Current Governance Issues in the Inland Fisheries of Asia-Pacific
Organized by: Dr. Andrew Song, James Cook University, Australia; Ms. Shannon Bower, Carleton University, Canada

- Biofloc Technology

Organised by: Dr. Krishna R. Salin. Aquaculture and aquatic resources management (AARM), Asian institute of Technology, Thailand

- Cross-country Studies on Coastal Resource Management

EEPSEA Cross-country project: Economic Impact of Community-based Coastal Resource Management Program in Southeast Asia

- Special Session on the Status of Aquatic Genetic Resources for Food and Agriculture

Organised by: Network of Aquaculture Centres in Asia Pacific (NACA), Bangkok, Thailand

Besides oral presentations during the Forum as many as 91 posters were exhibited under five themes, including Governance (4), Sustainable Intensification of Aquaculture (59), Response to Impact of Climate Change (4), Sustainable Fisheries (12) and Seafood, Post-Harvest Technology and Food Safety (12).

The Exposition-2016 organised in conjunction of the Forum also received great interests among the private industries and R&D organisations.



6.2 International Symposium on Cage Aquaculture in Asia (CAA)

The International Symposium on Cage Aquaculture in Asia (CAA) was the first Specialized Symposium series organised by the AFS. It was Dr. I.C. Liao, a past President of AFS, who initiated the event.

- **The 1st International Symposium on Cage Aquaculture in Asia (CAA1)** was organised during 19th-22nd November, 1999 in Tungkang, Taiwan. The CAA1-cum-Trade Exhibition was attended by some 200 participants from 15 countries in the Asia-Pacific region including some from EU and North America. It provided a suitable platform for the scientists, producers and commercial stakeholders to meet, discuss and evaluate the potential and future of cage aquaculture. The interests shown and the successes of this first meeting lead to a decision by the 8th Asian Fisheries Society Council to make the CAA a permanent symposium series of the Society.



1st International Symposium on Cage Aquaculture in Asia (CAA1)

- **The 2nd International Symposium on Cage Aquaculture in Asia (CAA2)** was held in Zhejiang University, Hangzhou, China during 3rd-8th July, 2006. The Symposium was organized by AFS, in association with Zhejiang University (ZJU) and the China Fisheries Society as co-sponsors. CAA2 was attended by some 350 scientists and other major international stakeholders. During the 3-day meeting nine major sessions covering all aspects of cage culture in freshwater, brackish and ocean cages were discussed. In addition, there were two special lectures and five keynote addresses. The highlight of the symposium was the special session on the “Cage Culture - Regional Reviews and a Global Overview” which was sponsored by the FAO. The FAO review provides the first up to date review on the current status of the cage culture practices in the world-from traditional freshwater cages to large-scale commercial ocean cage farming systems.



- **The 3rd International Symposium on Cage Aquaculture in Asia (CAA3)** with the theme “Securing the Future” was held in Kuala Lumpur, Malaysia during 17th-19th November, 2011 in conjunction with the Malaysian International Seafood Exposition (MISE) exposition. The Symposium was organised by the Asian Fisheries Society (AFS) and Malaysian Fisheries Society (MFS) in partnership with Universiti Putra Malaysia (UPM) and the Fisheries Development Authority of Malaysia. The emphasis of the Symposium is to provide updated and recent



information in cage aquaculture and encourages networking between researchers, practitioners, law enforcement agencies and all other stakeholders. The Symposium included six concurrent sessions. CAA3 was attended by some 326 participants from 24 countries and as many as 56 paper and 27 posters were presented during the Symposium. Majority of the participants were from industries in Malaysia.



- The 4th International Symposium on Cage Aquaculture in Asia (CAA4)** was organised as special sessions along with of the forum 10th Asian Fisheries and Aquaculture Forum (10AFAF) at the Ocean Resort, Yeosu, Korea during 30th April-4th May, 2013. The presentations during CAA4 were made under two Special sessions, viz., 1) Marine and freshwater cage culture, seed production; and 2) Disease prevention and health management, pollution, ecotoxicology. There were 23 presentations during the Symposium, besides five special lectures, which included, 1) Sustainable cage culture development-technical, environmental and policy considerations by Dr. Matthias Halwart (FAO), 2) North-Atlantic cage Aquaculture by Dr. Jon Arne Grottum (Norwegian Seafood Federation), 3) Cage aquaculture in the Mediterranean by Dr. Alessandro Ciattaglia (Bandinotti Group SPA), 4) Modern trends in offshore cage culture and its potential for Asia by Dr. Erick Hempel (The Nor-Fishing Foundation) and Offshore aquaculture in Korea by Dr Lee Jung-Uie (NFRDI, Korea).



- **The 5th International Symposium on Cage Aquaculture in Asia (CAA5)** was organised by the ICAR-Central Marine Fisheries Research Institute (CMFRI), India; Asian Fisheries Society (AFS), Malaysia; and the Asian Fisheries Society Indian Branch (AFSIB) at Kochi, India during 25th-28th November, 2015. The Symposium was inaugurated by Dr. S. Ayyappan, Secretary, Department of Agricultural Research and Education (DARE) and Director General, Indian Council of Agricultural Research (ICAR), India with other dignitaries present on the dais were Dr. J.K. Jena, Chairman, AFSIB and Director, NBFGR, Lucknow, India who presided over the function; Dr. Mohan Joseph Modayil, Former Member, ASRB, India and Member CAG, AFS; Dr. Derek Staples, Immediate Past President, AFS; Dr. Alice Joan Ferrer, Vice-President, AFS; and Dr. A. Gopalakrishnan, Convener, CAA5 and Director, CMFRI, India.



The Scientific Session included a Symposium Theme Lecture; five Keynote addresses and 17 Lead Talks in different sessions; Altogether 117 papers pertaining to recent advances and research activities in the field of cage aquaculture were presented during the meet, including 42 oral and 75 poster presentations in 6 different sessions. The response to the symposium was overwhelming with over 200 submissions received, out of which 141 selected abstracts were published in the form of Book of Abstracts. 252 delegates participated in CAA5, including 27 overseas delegates from 10 countries viz., Norway, UK, Australia, China, Indonesia, Korea, Vietnam, Philippines and Thailand, besides India.



The Symposium Theme lecture on “Greening the Asian Cage Aquaculture Construct” was delivered by Prof. Mohan Joseph Modayil (India). The keynote address were delivered by Mr. Trond Severinsen (Norway) on Marine Production Systems, Dr. V.V. Sugunan (India) on Inland Production Systems, Dr. G. Gopakumar (India) on Breeding and Seed Production, Dr. P. E. Vijay Anand (India) on Nutrition and Feed, Dr. Brit Hjeltne (Norway) on Health and Environment Management, and Dr. Marius Dalen (Norway) on Economics, Livelihood and Policies.

All the Sessions had lead talks by eminent speakers and scientists from different organisations in India and overseas, which included Dr. Niels Svennevig (Vietnam), Dr. Clive Jones (Australia), Dr. K.G. Padmakumar (India), Dr. A.K. Das (India), Mr. Uttam Kumar Subuddhi (India), Dr. Asmund Bjordal (Norway), Dr. Ketut Sugama (Indonesia), Dr. Kristoffer Lunde (Norway), Dr. Trevor Platt (UK) Dr. K.K. Vijayan, (India), Dr. Indrani Karunasagar (India), Dr. Murwantoko (Indonesia), Dr. P. Ravichandran (India), Sri. Suresh Kumar (India) and Shri. Jacob Joseph (India). The participating scientists and students from different organisations in India and abroad presented their research findings as oral and poster presentation.





An Exhibition and Trade show was also organised as a parallel event which included 22 stalls from State and Central Government Agencies, ICAR institutes, Fisheries Universities, Entrepreneurs, Banks and NGOs from India, which was inaugurated by Dr. Derek Staples, Immediate Past President, AFS (Malaysia).





- **The 6th International Symposium on Cage Aquaculture in Asia (CAA6)** was jointly organized by Department of Marine Science, Faculty of Science, Chulalongkorn University, National Science and Technology Development Agency (NSTDA) and Prince of Songkla University, Surat Thani Campus (PSU-Surat) at Wangtai Hotel, Surat Thani, Thailand during 12th - 15th October, 2018. Researchers from seven countries including Thailand, India, Taiwan, Malaysia, Pakistan, Japan and Philippines participated in this important event.

The Symposium started with warm welcome by Prof. Alice Ferrer, Vice-President and Dr. Sirawut Klinbunga, Councillor, AFS. CAA6 was formally opened by Assoc. Prof. Dr. Chareon Nakason, Vice-President, PSU-Surat. Three keynote lectures were delivered. Prof. Alice Ferrer introduced "Mariculture Park Program in the Philippines: Challenges and the Way Forward" followed by the research



L-R: PSU-Surat Student, Prof. Dr. Ikuo Hirono (Keynote speaker), Prof. Dr. Alice Ferrer (Vice-president of AFS and Keynote speaker), Dr. Sirawut Klinbunga (AFS Councillor and Keynote speaker), Prof. Dr. Chareon Nakason, PSU-Surat (Co-convenor, PSU-Surat) and PSU-Surat Student

on “Genetics and biotechnologies for sustainable aquaculture of the giant tiger shrimp *Penaeus monodon*” by Dr. Sirawut Klinbunga. In addition, Prof. Ikuo Hirono gave an important lecture on “Aquatic vaccines in Japan and studies on fish DNA vaccines”. These interesting presentations on different fields covered main themes of CAA6.

The three Keynote Lectures delivered during CAA6 were on ‘Mariculture Park Program in the Philippines: Challenges and the Way Forward’ by Prof. Alice Ferrer, Vice-President, AFS; ‘Genetics and Biotechnologies for Sustainable Aquaculture of the Giant Tiger Shrimp *Penaeus monodon*’ by Dr. Sirawut Klinbunga, Councilor, AFS; and ‘Aquatic Vaccines in Japan and Studies on Fish DNA Vaccines’ by Prof. Ikuo Hirono, which covered main themes of CAA6.

The CAA6 provided an appropriate platform for exchange of information and ideas, and disseminate updates on the development of both cage aquaculture and aquaculture biotechnology. Scientific sessions included various aspects of cage aquaculture. High quality research from other areas like nutrition and feed, health and environment management, economics and policies were also presented.



Keynote lectures delivered by Prof. Alice Ferrer and Dr. Sirawut Klinbunga

A student session was also organized, in which presentations related with cage aquaculture were presented by Mr. Benedict Mark M. Carmelita (University of the Philippines Visayas) and Mr. Mohamad M. Fikri (School of Social Sciences, Universiti Sains Malaysia). Five additional presentation from various aspects of biotechnological studies were contributed by graduate students from Thailand. Ms. Pongsawan Khaosa-art, Suranaree University of Technology, Thailand received the Best Student Presentation Award on her research entitled ‘Effect of extenders and cryoprotectants on viability of spermatogonia and

oogonia of striped catfish (*Pangasianodon hypophthalmus*)'. In addition, the Best Poster Presentation Award was given to Mr. Kentaro Imaizumi, Tokyo University of Marine Science and Technology, Japan for presentation on 'Effect of *Bacillus amyloliquefaciens* TOA5001 as a potential probiotic on whiteleg shrimp (*Litopenaeus vannamei*)'.

The Symposium reception was hosted by the National Science and Technology Development Agency (NSTDA) on the evening of 13th October, 2018 and AFS representatives gave the merit award to thank CAA6 Local Organizing Committee (LOC) and secretariat on their significant contribution for the successful organization of CAA6.

The three-days Symposium of CAA6 was formally closed on 15th October 2018 by Assoc. Prof. Voranop Viyakarn, Head of Department of Marine Science, Faculty of Science, Chulalongkorn University. Dr. Viyakarn sincerely acknowledged Co-conveners from NSTDA and PSU-Surat.



Presentation by Dr. Imelda Joseph, India, recipient of Best Presentation Award





Prof. Aziz Ashad presenting Merit Award to one Local Organizing Committee member from PSU-Surat



Dr. Sirawut Klinbunga presenting the Merit Awards to the Secretariat of CAA6; Ms. Sureerat Saetang (NSTDA) and Ms. Suraiya Kentasa (Chulalongkorn University)



6.3 International Symposium on Aquaculture and Fisheries Education

The International Symposium on Aquaculture and Fisheries Education (ISAFE) focuses on the status and development of aquaculture and fisheries education in the Asia-Pacific region. During the 8th Council term, Prof Yangyi, the Chair of the Conference and Workshop Committee proposed that the Society should look into the needs for better education and training in aquaculture and fisheries in the Asia-Pacific region. After a series of lengthy discussions, an MOU was signed with the Asian Institute of Technology (AIT) to organise a conference/workshop, with AFS and the Shanghai Ocean University (SHOU) as co-sponsors.

- **1st International Symposium on Aquaculture and Fisheries Education (ISAFE1)** was held at the Asian Institute of Technology (AIT), Bangkok, Thailand during 27th-30th November, 2009. The Symposium aimed at bringing together a group of distinguished speakers from the Asia-Pacific (AP) region and other parts of the world to discuss issues pertaining to aquaculture and fisheries education and how education can support the industry, especially in the Asia-Pacific. The ISAFE1 with the theme *“The Future of Aquaculture and Fisheries Education”* had the following objectives:
 - Exchange information on the status and recent advances in aquaculture and fisheries education in Asia and other parts of the world;
 - Share experiences among educators, policy makers and industry on emerging needs for aquaculture and fisheries education; and
 - Promote collaboration among the educators, scientists and institutions involved in aquaculture and fisheries education, research and development.



The discussions were held under different themes as given hereunder, which were also followed by an Open Panel Discussion Session at the end of the Symposium.

- Current status of aquaculture and fisheries education
- Need-based curriculum development
- Innovative teaching and learning methods
- Distant/flexible education
- Academic and industry partnerships
- Support for education and research for young fisheries scientists
- Future direction and strategy



The Symposium was attended by 103 participants from around the world. The meeting started with welcome addresses by AIT President Prof. Said Irandoust, President of SHOU Prof. Yingjie Pan, and AFS President, Prof. Ida Siasson, followed by the five discussion sessions. Each of the first five sessions was introduced by Keynote papers presented by Drs Peter Edwards, Meryl Williams, David Little, Dilip Kumar and Sena de Silva.

- **Session 1** had 15 presentations on the Current Status of Fisheries and Aquaculture Education in several countries including Japan, Philippines, Mainland China, Thailand, Vietnam, India, Taiwan, Bangladesh, Nepal, Sri Lanka and Malaysia.
- **Session 2** had nine papers on Curriculum Development and Training, and tackled curricular approaches to internship, management training, experiential learning and aquaponics.
- **Session 3** had six papers on Innovative Teaching and Learning, several of which reported on new approaches and productive experiences in using internet/websites in delivering the curriculum such as in China and Europe.

- **Session 4** had seven papers on Partnerships and Collaboration highlighting the partnership aspects of education programs which can facilitate student and faculty exchange among partner institutions.
- **Session 5** had 10 papers that dealt with future strategy, addressing the prospects and initiatives within fisheries and aquaculture education including concerns on the inclusion of multi-disciplinarily, gender mainstreaming, and accreditation for quality.

The Final Session was an Open Discussion, assisted by a Panel, focusing on issues that were brought out by the various papers presented during the Symposium. Interest in organizing an Education Consortium for Fisheries and Aquaculture Education was strongly expressed, which can take a first step by reviewing past experience of AFS and NACA on such an initiative.



- **2nd International Symposium on Aquaculture and Fisheries Education (ISAFE2)** was organized by Asian Fisheries Society (AFS) and Shanghai Ocean University (SHOU) at SHOU campus at Lingang New City in Shanghai during 22nd-24th April, 2015. Over 90 participants from 15 countries attended the Symposium. The Book of Abstracts published on the occasion included 81 papers. Three Keynote speeches were delivered by eminent educationist/experts on different themes, viz., 1) 'Globalizing Fisheries and International linkage in its Education' by Prof. Tatsuro Matsuoka, Kagoshima University, Japan, 2) 'Experiences from AQUA-TNET (EU Thematic Network for Lifelong Learning in Aquaculture, Fisheries & Aquatic Resources Management)' by Prof. John Bostock, University of Sterling, UK, and 3) 'Development Trends of Chinese Fisheries Education in Light of the

Development of the Industry' by Prof. Shuolin Huang, Shanghai Ocean University, China. Eight country reports were also presented by the experts covering current status of aquaculture and fisheries education in Asian and European countries.

Three special sessions were also convened during ISAFE2, which included Fisheries and Aquaculture Department of FAO; Post-graduate Programme on Tropical Fisheries; and International Linkages and Tamil Nadu Fisheries University, India. These sessions allowed in depth discussion on the subject and having understanding on status and trend of non-formal education, south-south cooperation, linkage in fisheries education and so on. Dr. Matthias Halwart, Prof. Tatsuro Matsuoka and Dr. Baskaran Manimaran were the Chairs for the three respective Sessions.

The Symposium provided opportunity to once again bring educators, students and training agencies from all across the aquaculture and fisheries teaching institutions, industries and education regulatory agencies together, and had a great discussion and achievement in many



critical issues, such as curriculum development, teaching methods innovation, partnerships in training between Stakeholders and academic sectors and future direction and strategy on aquaculture and fisheries education. As many as 77 presentations were made in 6 regular sessions and in 3 special sessions as follows:

Sessions

- Current status of Aquaculture & Fisheries Education-Country and region reports; Chair: Dr. Alice J. Ferrer
- Recent curricula development and implementations; Chair: Prof. Aziz Arshad
- Partnerships in training between Stakeholders-Academic, Training and Industry Sectors; Chair: Dr. J. K. Jena
- Innovative Teaching and Learning Methods; Chair: Dr Sirawut Klinbunga
- Need-based Curriculum Development; Chair: Prof. Chen-Huei Huang
- Future Direction and Strategy; Chair: Dr. Alice J. Ferrer



Special Sessions

- FAO Special Session on non-formal education and its implementation in South-South Cooperation; Chair: Dr. Matthias Halwart
- Fisheries Higher Education and International Linkages (Postgraduate Programme on Tropical Fisheries and International Linkages) - Chair: Prof. Tatsuro Matsuoka
- Tamil Nadu Fisheries University ; Chair: Dr. Baskaran Manimaran





Closing Ceremony of the ISAFE2



Group photo of the participants of the ISAFE2

- **The 3rd International Symposium on Aquaculture and Fisheries Education (ISAFE3)** was organized by the ICAR-Central Institute of Fisheries Education (CIFE), Mumbai, India in collaboration with the Indian Fisheries Association (IFA) and Asian Fisheries Society Indian Branch (AFSIB) at CIFE, Mumbai, India during 16th-18th May, 2018. The theme of the Symposium was "Fisheries Education for Sustainable Blue Economy".

The Symposium was inaugurated by Shri Mahadev Jankar, the Hon'ble Minister for Animal Husbandry, Dairy and Fisheries, Gov't of Maharashtra, India as the Chief Guest on 16th May 2018, in the presence of other luminaries like Dr. Anil Kakodkar, Former Chairman of Atomic Energy Regulatory Board; Dr. J.K. Jena, President of the AFS and DDG (Fisheries Science), Indian Council of Agricultural Research (ICAR); Dr. C. Virapat, Director General, Network of Aquaculture Centres in Asia Pacific (NACA), Thailand; Prof. S.J. Kaushik, European Research Area (ERA) Chair Professor, and Dr. Gopal Krishna, Director, ICAR-CIFE and Convenor of the ISAFE3. The 3-days event was attended by 260 participants, including 15 delegates from countries such as Sri Lanka, Bangladesh, Thailand, Ethiopia, France, Nigeria, Bhutan, South Korea, Nepal and Spain. The Symposium had six major Technical Sessions on various themes, viz., Education for a sustainable fisheries and aquaculture; Attracting and retaining youth in the sector; Climate change and environmental concerns through fisheries education; Skill development through training and informal education; Entrepreneurship development and a Special Session on Course Curricula in Asia-Pacific region for better job opportunities.



One of the highlights of the Symposium was the Special Session for Students. Young minds presented exciting ideas/concepts and research outcomes. An eminent panel of seven experts evaluated all the student presentations and encouraged them with inspiring remarks and the best presentations were given awards at the concluding function of the symposium.

Besides oral presentations and invited talks by the lead speakers, the Symposium also had a Poster Session in which as many as 72 posters were presented, of which 29 were related to fisheries education and the remaining related to fisheries research. The content of posters ranged from curriculum development, skill development, professionalism, employment opportunities, attracting youth, digital education, fish eco-tourism, entrepreneurship development to climate change, sustainability and eco-friendly education.



Release of Souvenir during the Inaugural Ceremony of the ISAFES3



The Plenary and Valedictory function was held on 18th May, 2018, in which Dr. T. Mohapatra, Secretary, Department of Agricultural Research and Education (DARE) and Director General, Indian Council of Agricultural Research (ICAR) was the Chief Guest. The other dignitaries present were Dr. J. K. Jena, President, AFS and Chairman, AFSIB; Dr. S. D. Tripathi, Former Director, ICAR-CIFE and Dr. C. Virapat, DG, NACA and Dr Gopal Krishna, Convener of ISAFE3.



Dr T. Mohapatra, Secretary, DARE & DG, ICAR in Plenary and Closing Ceremony of ISAFE3 along with other dignitaries

An exhibition was also organized on this occasion, in which several research institutes and industry partners participated.



Inauguration of the Exhibition organised during ISAFE3 and visit of participants to the Exhibition

6.4 Gender in Aquaculture and Fisheries (GAF)

In its activities on gender and fisheries, the Asian Fisheries Society has been a global pioneer among fisheries and aquaculture professional societies. It leads other professional societies in its focus on gender in aquaculture and fisheries. AFS has changed perceptions of women's importance in the sector. It has revealed the changing roles and contributions of women and men in fish supply chains. Gender roles, contributions, policies and practical pathways for improving people's lives and the performance of the fish supply chain have become, since 1998, regular topics of discussion at the triennial AFS Fora. AFS also supports networking and web-based activities between the Fora.

In 1990, the AFS Indian Branch conducted the first event, namely its Indian Women in Fisheries Workshop. On the main AFS agenda, the women/gender symposia started from a 'Women in Fisheries' photo competition held at the 4AFF in 1995 at Beijing, which was sponsored by PADEK, a Cambodian non-government aid agency and two earlier PADEK-led women in fisheries in workshops, Cambodia (1994) and Indochina (held in Cambodia in 1996). These events focused on women's major contributions to fisheries in Cambodia, Laos, Thailand and Vietnam and recommended that an Asian symposium be held.



In 1998, AFS then convened its First Symposium on 'Asian Women in Fisheries' at the 5AFF in Chiangmai, Thailand and followed that with the 2001 'Global Women in Fisheries' Symposium at the 6AFF in Kaohsiung, Taiwan. This larger forum attracted participants from Asia, Africa, North and South America, Europe and Oceania. Among other outcomes, this Symposium was the first in the world to raise the issue of the high incidence of HIV/AIDS in some fisheries communities, leading development agencies and governments to start to pay attention to this serious health challenge. In 2002, AFS and WorldFish Centre set up the Gender and Fisheries List server. In more recent years, this list has been replaced by a number of social media outlets under the Genderaquafish.org umbrella.

The AFS Symposia built the case for the importance of the whole fish supply chain and the contributions by women and men, and their power relations within the fishery sector. Therefore, AFS broadened its attention to 'Gender' rather than just women and deepened its approaches to encourage more research.

- **1st Global Symposium on Gender and Fisheries (GAF1):** In 2004, 'The First Global Symposium on Gender and Fisheries' was held in Penang, Malaysia at the 7AFF. The theme was 'Changing Tradition: First Global look at the Gender Dimensions of Fisheries'. Delegates considered the impact of HIV and AIDS, globalization and trade on women, and worked towards making the conceptual shift from 'Women in Fisheries' to 'Gender and Fisheries'.
- **2nd Global Symposium on Gender and Fisheries (GAF2):** At the 8AFF Kochi, India, the 2nd Global Symposium on Gender and Fisheries held in 2007 had the theme 'Gender and Fisheries: Solutions Through Gender Research' and addressed (1) gender issues in inland and coastal resource management and aquaculture, (2) income, fish processing, trade, globalization and WTO, (3) nutrition and human health, (4) gender mainstreaming in fisheries research and development projects and (5) models for successful fishing/fish farming families/communities.
- **3rd Global Symposium on Gender in Aquaculture and Fisheries (GAF3):** The 3rd Global Symposium on Gender in Aquaculture and Fisheries (GAF3) was held as a part of 9th Asian Fisheries and Aquaculture Forum at the Shanghai Ocean University, China during 21st-23rd April, 2011. The GAF3 shown light on the gender gap in the fish sector. This is the Society's fifth women/gender Symposium, which attracted a record number of papers and stimulated lively discussions. It was followed by a FAO's Special Workshop on 'Future Directions for Gender in Aquaculture and Fisheries Action, Research and Development'. Common themes were revealed: social context needs deeper diagnosis than gender alone in order to understand the complex 'back stories'; women are still invisible and often marginal in the fish sector, trade and in natural resource management, although mainstream exceptions exist; the conundrum of women's access to microfinance yet lack of progress in building assets;

and the struggles and successes of achieving gender equality in institutions. Messages of hope also emerged, founded on intrinsic community and personal resilience strategies and innovations such as training and inclusive governance.



- **4th Global Symposium on Gender in Aquaculture and Fisheries (GAF4):** The 4th Global Symposium on Gender in Aquaculture and Fisheries (GAF4) was held as part of 10AFAF in Yeosu, Korea in 2013. In all, there were 28 oral presentations, one poster and four mini-workshops/panels. The AquaFish-CRSP Best Paper prize was won by Kumi Soejima (Japan) for her paper Changes in the Roles of Women and Elderly Persons within Oyster Aquaculture in Japan. The AquaFish-CRSP Best Student Paper prize was won by Piyashi Deb Roy (India) for her paper (with R. Jayaraman, M. Krishnan and K. Criddle) on Importance of Mangrove Conservation and Valuation to Women – A Case Study of Pichavaram Mangroves in India.



A special part of GAF4 was the Special Session in Honour of Dr M.C. Nandeesh, sponsored by the AquaFish-CRSP and dedicated to the life and work of Dr Nandeesh who established the AFS gender in aquaculture and fisheries work.

GAF4 was supported by the Asian Fisheries Society, grants from the AquaFish Cooperative Research Support Program of the USA (AquaFish CRSP), the Norwegian Agency for International Development (NORAD), the Indian Council for Agricultural Research (ICAR), the Network for Aquaculture Centres in Asia-Pacific (NACA), the Korean local organising committee for the 10th Asian Fisheries and Aquaculture Forum (10AFAF), and the home agencies of the many presenters and participants.

- 5th Global Symposium on Gender in Aquaculture and Fisheries (GAF5):** The '5th Global Symposium on Gender in Aquaculture and Fisheries (GAF5)' was organized by the Asian fisheries Society (AFS), Kuala Lumpur in collaboration with AFSIB and NBFGR, Lucknow during 13th -15th November, 2014, which was inaugurated by Dr. Leena Nair, Chairperson, Marine Product Export Development Authority (MPEDA), India as Chief Guest on 13th November, 2014. Dr. B. Meenakumari, Deputy Director General (Fisheries Science), ICAR, India presided over the function. Dr. Meryl J. Williams, Former Director General, WorldFish and Director, Asia Pacific-Fish Watch, and Dr. Chersak Virapat, Director General, NACA, Bangkok and Dr J.K. Jena, Convener, 10ifaf and Director, NBFGR, India were the Guests of Honour on the occasion. This is the first time that a GAF event was held in conjunction with the Indian Fisheries Forum. Dr. Meryl J. Williams and Dr. B. Meenakumari, were the Co-Chairs of GAF5 and Dr. Nikita Gopal, Principal Scientist, CIFT was the Program Chair.



Inaugural Ceremony of the GAF5

The three-days Symposium was filled with around 50 stimulating contributions of several kinds which included 20 oral presentations, including 2 Plenary Lectures and 8 papers in the Focus India session; 3 special workshops, including one with 7

oral presentations; 6 films and videos; 1 panel discussion comprised of 3 speakers and audience discussion; 9 posters and a special GAF Network Meeting. The meet witnessed the presence of many new researchers and development experts who work on gender within fisheries and aquaculture institutions and development agencies, especially non-government Organisations (NGOs). Delegates from different parts of the world including India, Malaysia, Bangladesh, Indonesia, Lao PDR, Thailand, Vietnam, Cambodia, Japan, Philippines, Mozambique, Australia, Spain, France and USA participated in GAF5.

GAF5 was supported by the Asian Fisheries Society, Asian Fisheries Society Indian Branch, Indian Council of Agricultural Research, Network of Aquaculture Centres in Asia-Pacific, United States Agency for International Development MARKET project (USAID-MARKET), NORAD (Norwegian Agency for Development), Marine Products Export Development Authority (India), National Fisheries Development Board (India), National Bureau of Fish Genetic Resources, Aquaculture without Frontiers and the presenters and their host organisations.



Technical Sessions of the GAF5



Group photo of the participant of the GAF5

- **6th Global Symposium on Gender in Aquaculture and Fisheries (GAF6):** The 6th Global Symposium on Gender in Aquaculture and Fisheries (GAF6) with the theme 'Engendering Security in Fisheries and Aquaculture' was organised at Bangkok, Thailand during 3rd-6th, August, 2016. This four-days event was filled with a record number of stimulating contributions of several kinds, which attracted over 17% of all presentations at 11AFAF.

The diverse program contributions were as follows:

- 68 presentations – 47 oral presentations, 19 oral summaries of posters and 2 posters organised in Special Sessions, some with panels, and Regular Sessions.



GAF6: Group photo of participants and presenters

- The first GAF-101 Training Workshop: Theorizing Gender in Aquaculture and Fisheries research, attended by over 50 people.
- 2 Special Sessions with panels – one on the “Implementation of the Gender Elements of the Small Scale Fisheries Guidelines” and the other on “*The Fish Industry, Gender and Social Development.*”
- Special Sessions on: “*Gender in Fish Trade and Value Chains,*” “*Focus Thailand and Mekong Region*” and “*Regional Updates on Gender in Fisheries and Aquaculture.*”



Participants at the GAF-101 Training Workshop on Gender in Aquaculture and Fisheries Research

- Regular Sessions on *“Climate Change and Disaster Preparedness”*, *“Fisheries Resources, Aquaculture and Gender”*, *“Fishing Communities and Wellbeing Including Violence Against Women,”* *“Thinking Beyond the Framework of Gender and Fisheries”* and *“Gender and Food Safety”*.
- A *“Youth and Fish”* painting competition for students, sponsored by the Network of Aquaculture Centres in Asia Pacific.
- A GAF Networks Meeting that progressed the formation of the Gender in Aquaculture and Fisheries Section of AFS.

Based on the presentations, a Special Issue of the Asian Fisheries Science Journal (Issue No. 30S) was published in 2017, containing a Guest Editorial, 25 papers and the overview report of all GAF6 presentations.

- GAF-India, 11th Indian Fisheries and Aquaculture Forum** : The Gender in Aquaculture and Fisheries Section of the AFS used the opportunity of the 11IFAF organised by the Asian Fisheries Society Indian Branch (AFSIB) in Kochi, India during 21st-24th November, 2017, for its Official Section launch, the launch of several new products, and to conduct the GAF-India event that was comprised of presentations, an International Workshop in partnership with the International Collective in Support of Fishworkers (ICSF), and the M.C. Nandeesh Photo Competition.

The Symposium on Gender in Aquaculture and Fisheries in India (GAF-India) was a successful event. It featured 23 presentations, including 2 invited presentations, 6 posters and the Special Workshop on Challenges in the



implementation of the Voluntary Guidelines on the Small-scale Fisheries of FAO in South Asia. An award winning film, “The Women of Petatan” by Carmen Pedroza, was also shown, and a scientific Write-Shop “Writing a Gender Research Paper: tips from editors and reviewers”, was also conducted.

The sessions of GAF-India were: (1) Gendered Impacts on Market Changes in the Fisheries Sector; (2) Gendered View on Roles and Opportunities; (3) Fostering Innovations in Fisheries and Aquaculture: Capacity Building; (4) Climate Change, Disaster Preparedness and Resilience; and 5) A Special Workshop on ‘Challenges in the Implementation of the Voluntary Guidelines on Small-scale Fisheries (SSFVG)’ of FAO in South Asia, ICSF. All presentations can be found on <http://www.genderaquafish.org/events/gaf-2017-india/gaf-india-programme/>.

Prior to the event, the M.C. Nandeesh Photo Competition attracted 68 entries from all over India, each illustrating the photographer’s interpretation of the theme (an activity, issue, event picturing gender equity in Indian aquaculture and

fisheries), the quality of the photograph and an appropriate caption. The competition was judged by popular online voting and by a small team of GAFS. All the photos can be viewed at: <http://www.genderaquafish.org/events/gaf-2017-india/m-c-nandeesh-photo-competition-entries/>



Prof. K. V. Thomas (MP) launches the Asian Fisheries Science Special Issue 30S (2017) - Gender in Aquaculture and Fisheries: Engendering Security in Fisheries and Aquaculture



First Prize in the M.C. Nandeesh Photo Competition - Women's participation in fish harvesting by Vikash Kumar, ICAR-CMFRI, India

- **7th Global Conference on Gender in Aquaculture and Fisheries(GAF7):** The 7th Global Conference on Gender in Aquaculture and Fisheries (GAF7) was organised at Bangkok, Thailand during 18th-21st October, 2018. It was the first stand alone event of the Gender in Aquaculture and Fisheries Section (GAFS) of the Asian Fisheries Society (AFS). This was an exciting opportunity to create a platform for sharing the latest gender in fisheries and aquaculture research, learning new methods and

approaches, launching new training products and crafting a vision for the future of our research field. GAF7 followed 28 years of Women and Gender Symposia and Workshops supported by the AFS and its Indian Branch (AFSIB).

GAF7 hosted by the Asian Institute of Technology (AIT) included 3 intense days of conference and side events plus a well-attended field trip. Event co-organizers included the GAFS, AIT and the Network of Aquaculture Centres in Asia-Pacific (NACA). It was sponsored by the Australian Centre for International Agricultural Research (Platinum), WorldFish, The Crawford Fund, USAID Oceans and Fisheries, Plan International, Thailand Convention and Exhibition Bureau and the Commission on Gender and Geography, and had 17 partners and supporters from Asia, Australia and beyond.

The 149 participants from 28 countries represented: Africa (4%), Asia (72%), Europe (5%), North America (7%), Oceania and Australia (7%) and South America and Caribbean (5%); 81% were women and 19% men. Dr. Eden Woon, President of AIT, welcomed the participants and Dr. Darian McBain, Thai Union Global Director for Sustainable Development delivered the Keynote Address. Dr. Amonrat Sermwatanakul, Senior Executive Expert in Fisheries Management, Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand was presented with a special plaque recognising her promotion of gender equality in fisheries and aquaculture, including receiving the Grand Award for “The Excellence on Human Right Protection and Gender Equality Promotion (Public Sector)” from the Prime Minister of Thailand.



Dr Amonrat Sermwatanakul receiving her GAF7 recognition award from Dr Meryl Williams during the Opening Ceremony.

GAF7 offered abundant choices among the 95 research presentations (78 oral and 17 posters), grouped into 8 thematic sessions and 9 workshops, run in 4 parallel sessions. Most importantly, discussions within the formal settings of sessions and workshops, as well as informal discussions in the hallways participants explored GAF issues, shared experiences, learned from each other and built professional networks as well as friendships.



Participants discussing in Technical Sessions of GAF7

The eight Session Themes included Gender assessments in fisheries and aquaculture; Gender-disaggregated statistics; Gender and the seafood industry; Gender and Fisheries & Aquaculture Governance; Gender and climate change with reference to fisheries & aquaculture; Focus on SDG5, and other SDGs, in fisheries and aquaculture; Gender research methods in fisheries & aquaculture; and Learning exchanges - experiences and lessons.

The Nine Special Workshops organised were as follows:

- Photovoice: Researching gender in aquaculture and fisheries through the camera lens (Janine Pierce, AwF Australia)
- GAF101: Using “Intersectionality” in Research on Gender and Fisheries and Aquaculture. A GAF 101 Training Session (Marilyn Porter and Holly Hapke)

- Plan International Seas for Change (Sadia Tahseen and Iris Caluag)
- Furthering/Deepening Feminist Perspectives in Fisheries (Nalini Nayak and Cornelia Quist)
- Exploring Gender Equity and Equality in the SSF Guidelines (Danika Kleiber, Whitney Yadao-Evans, and Cynthia McDougall)
- Role of women fishworker organizations towards implementation and monitoring of small scale fisheries guidelines; case of African Women Network of Fish Processors and Traders (AWFISHNET) (Editrudith Lukanga and Kafayat Adetoun Fakoya)
- Gender transformative approaches in fisheries and aquaculture: An exploration of strategies and emerging outcomes (Cynthia McDougall)
- Gender Analysis through Micro and Small Aquaculture Operation (MiSAO) Best Aquaculture Practises (M-BAP) (Zumilah Binti Zainalaludin)
- Mainstreaming gender in fisheries education (Mary Barby Badayos-Jover, Arpita Sharma, Kyoko Kusakabe, Salin Krishna and Kumi Soejima)

During GAF7 there was also a focus on sharing the latest gender research approaches, including the gender transformative approach, and applying feminist intersectionality. Other areas were innovative technologies, women's collective action, and Photovoice.

In addition to the GAF Conference website and E-book of abstracts, at the Conference, the GAF Section launched its new website and those brief - *Fishing for Equality : Why gender matters in aquaculture and fisheries*. The policy brief highlights the key actions those are needed to make real progress toward gender equality (<https://www.genderequality.genderaquafish.org/>).

Other GAF7 products and side events were:

- INFOFISH International magazine cover story “Expanding the Horizons: From Nurturing Fish to Nurturing Society” By Meryl Williams, Nikita Gopal, Kyoko Kusakabe, Arlene Nietes Satapornvanit, and Hillary Egna. INFOFISH INTERNATIONAL (September/October).
- USAID training materials: *“Gender Research in Fisheries and Aquaculture: A Training Handbook.”* USAID, Gender in Aquaculture and Fisheries Section, Asian Fisheries Society, and SEAFDEC.
- *“Photovoice: Researching gender in aquaculture and fisheries through the camera lens.”*
Dr Janine Pierce: Special Workshop 1: GAF7 manual. Aquaculture without Frontiers Australia, University of South Australia.
- Plan International in Asia launched their new publication *“Into the Light: Young Female Migrant Workers in Thailand's Seafood Sector and their Access to Decent Work”*
- Winning entries from the *“Women in Seafood”* video competition organized by the International Association for Women in the Seafood Industry (WSI) were screened on the last day of the conference.



Dr. Amonrat Sermwatanakul with her GAF7 award recognising her promotion of gender equality in fisheries and aquaculture, including through receiving the Grand Award for “The Excellence on Human Right Protection and Gender Equality Promotion (Public Sector)” from the Prime Minister of Thailand.



Group photo of the participants in GAF7 held at the Asian Institute of Technology, Bangkok



GAF7 products. All can be downloaded through <http://www.genderaquafish.org/gaf7-publications-2/>

7. Encouraging Network Formation

The Society actively encourages the establishment of local branches and promotes affiliation with national societies, organizations and institutions having similar objectives. Local branches provide opportunity for a country's members to organize and become a louder voice in national fisheries issues.

The Society has three branches, in India, Taiwan and Japan; and the national societies of China and Malaysia are affiliated to the parent Society. Between 2004 and 2019, the 8th, 9th, 10th, 11th and 12th Councils visited many countries as part of its council meeting and these meetings are often held in conjunction with the activities of the branches.

Members working in specialized fields are encouraged to make use of the Society umbrella to form subject-oriented sections for increased communication and cooperation. **The Fish Health Section, Asian Fisheries Social Science Research Network** and the **Gender in Aquaculture and Fisheries** section are established sections of the Society.

7.1 The Fish Health Section

The Fish Health Section (FHS), founded on 30th January, 1989 is one of the most vibrant networks of the Asian Fisheries Society. The FHS was founded with the following objectives: to (1) promote effective interaction and cooperation among persons involved in aquatic animal health research; (2) encourage and promote investigation and advances in knowledge of aquatic animal health; (3) focus attention on aquatic animal health problems by disseminating technical and other information on all aspects of aquatic animal health; and (4) promote the proper implementation of effective aquatic animal health protection practices in the region.

The Triennial General Meeting (TGM) of the Fish Health Section is normally held in conjunction with the DAA which elects, by ballot, the officers of the Section and serves as a venue to conduct business meeting of the general assembly. The Section also co-organizes scientific symposia and workshops on topics of interest to the membership independently or in conjunction with the Asian Fisheries Society or any other organization with mutual interests in aquatic animal health.

The FHS is financed through the income from its triennial Symposia. There is no membership fee for FHS. Membership is open to all persons of the Asian Fisheries Society interested in the furtherance of the FHS objectives.

Current FHS membership spans many regions such as Africa (Nigeria, South Africa); Americas (Canada, Mexico, USA); Austral-Asia (Bangladesh, China, India, Indonesia, Iran, Israel, Japan, Korea Rep, Malaysia, Pakistan, the Philippines, Saudi Arabia, Singapore, Sri Lanka, Taiwan, Thailand, Australia, Mauritius, New Caledonia, New Zealand, Papua New Guinea); Europe (Belgium, Denmark, France, Germany, Hungary, Italy, Poland, Norway, The Netherlands, UK).

The FHS has formal contacts with the Asia Pacific Economic Cooperation (APEC), Food and Agriculture Organization of the United Nations (FAO), International Development Research Centre of Canada, Network of Aquaculture Centres in Asia-Pacific (NACA), Aquaculture Department of the Southeast Asian Fisheries Development Center (SEAFDEC), World Aquaculture Society (WAS) and the other professional global societies on aquatic animal health such as Fish Health Section of the American Fisheries Society, the European Society of Fish Pathology, and the Japanese Society of Fish Pathology.

The FHS, holds a regular triennial "Symposium on Diseases in Asian Aquaculture" (DAA), a meeting of members and aquatic animal health professionals that discuss broad issues and specific topics related to aquatic animal health; compiles and disseminates proceedings, notes, abstracts of Section-sponsored conferences and workshops and other relevant information on aquatic animal health, and promotes the development and use of standardized, internationally accepted techniques for the detection and diagnosis of diseases of aquatic animals of regional importance. The triennial events organised by the Section is given below.

The First Symposium on Diseases in Asian Aquaculture (DAA I) of the Fish Health Section of the Asian Fisheries Society (FHS-AFS) was held at Bali, Indonesia during 26th-29th November, 1990. The DAA I brought together 177 participants from 19 countries. A total of 95 original research and review papers were presented. A highlight of the symposium was a special session on the use of chemotherapeutic agents in Asian aquaculture. The combination of high quality scientific presentations and in-depth reviews of current topics by internationally recognized experts were the major highlights of the symposium.

The Second Symposium on Diseases in Asian Aquaculture (DAA II) was held at Phuket, Thailand during 25th-29th October, 1993 under the theme "Aquatic Environment and Health." During the meeting, which was attended by 165 participants from 21 countries, a total of 103 original research and review papers covering an array of topics dealing with the diseases and health management of aquatic species were presented. A highlight of the Symposium was a special round table discussion on "Fish Health Research Needs for a Sustainable Aquaculture Industry in Asia".

The Third Symposium on Diseases in Asian Aquaculture (DAA III) was held at Queen Sirikit National Convention Centre, Bangkok, Thailand during 29th January - 2nd February, 1996. It was held in conjunction with "World Aquaculture 96", organized by the Thai Department of Fisheries. This mega-event was attended by 3500 delegates and 1500 exhibitors.

The Fourth Symposium on Diseases in Asian Aquaculture (DAA IV) was held at Cebu, Philippines during 22nd-26th November, 1999. It was the 10th Anniversary of the Fish Health Section. The meeting was organized by the AFS/FHS and the SEAFDEC Aquaculture Department in cooperation with the Bureau of Fisheries and Aquatic Resources (BFAR) under the theme "Aquatic Animal Health for Sustainability".

The Fifth Symposium on Diseases in Asian Aquaculture (DAA V) was held at Gold Coast International Hotel in Surfers Paradise-Gold Coast, Australia during 24th-28th November, 2002. The Symposium was followed by two satellite workshops: Epidemiology and Risk Assessment from 29th-30th November, 2002 at the Gold Coast International Hotel and the Asia Pacific Regional Molluscan Health Management Training Workshop Phase II during 29th November - 4th December 2002 at the University of Queensland in Brisbane.



Group photo of the participants of DAA IV, Cebu, Philippines



Group photo of the participants of DAA V, Australia

The Sixth Symposium on Diseases in Asian Aquaculture (DAA VI) was held at Colombo Plaza Hotel, Colombo, Sri Lanka during 25th-28th October, 2005. The theme of the Symposium was "Aquatic Animal Health: Facing New Challenges".

The Seventh Symposium on Diseases in Asian Aquaculture (DAA VII) was held during 22th-26th June, 2008 at the Howard International House Taipei (HIHT), Taipei, Taiwan.



Group photo of the participants of DAA VII, Taipei, Taiwan

The Eighth Symposium on Diseases in Asian Aquaculture (DAA VIII) was held at Magalore, India during 21th-25th November, 2011. The event was inaugurated by the Joint Secretary of the Union Agriculture Ministry and graced by FHS Chairperson, NACA; Director-General, FAO; Director of Fisheries Policy Services; Vice Chancellor of Karnataka Veterinary, Animal & Fisheries Sciences University, Bidar and Dean (Fisheries) who was Chairperson of the event. 116 scientists from 22 countries and a total of 200 local fish health scientists, not counting the hundreds of post graduate students from India attended the 5-day Symposium. The theme of the Symposium was “Fish Health for Food Security”. Over these 5 days, 24 keynotes and 47 contributed papers were presented in 13 technical sessions covering disease, diagnostics, vaccines, genomics, disease preparedness and national plans. There were also 170 poster presentations.



The Ninth Symposium on Diseases in Asian Aquaculture (DAA9) was held in Ho Chi Minh City, Vietnam during 24th-28th November, 2014. It was hosted and organized by the Department of Animal Health, Ministry of Agriculture and Rural Development, Vietnam, and the local Organizing Committee headed by Dr. Nguyen Van Long. The meeting was attended by 56 participants from 33 countries around the world, with 99 oral presentations and 150 poster presentations on biosecurity, immunology, diagnostics, disease management, and emerging fish and shrimp diseases.



The 10th Symposium on Diseases in Asian Aquaculture (DAA10) of the Fish Health Section of the Asian Fisheries Society (FHS-AFS) was held during 28th August - 1st September, 2017 in The Anvaya Beach Resort, Kuta, Bali, Indonesia, the same country and city where the DAA1 was held. The theme of DAA10 was 'Enhancing Aquatic Animal Health Research and Services through

Public-Private Sector Partnerships'. The event was jointly organised by FHS-AFS and Ministry of Maritime Affairs and Fisheries, Indonesia.

The Symposium covered 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 were also exhibited during the conference. A total of 402 participants from 29 countries attended the Symposium.



There were 9 Keynote/Invited presentations, 72 Oral presentations and 43 Elevator pitch presentations. In addition, there were 107 posters. On side-lines of DAA10, four Satellite Workshops, NACA's Meeting of the Asia Regional Advisory Group on Aquatic

Animal Health; Tilapia Lake Virus meeting by WorldFish; OIE Koi Herpes Virus Twinning Program by National Research Institute of Aquaculture (Japan) and Centre for Freshwater Aquaculture (Indonesia); and a Shrimp Farmers' Night by Shrimp Club of Indonesia were also organized. To commemorate the excellent organization of DAA10, a traditional cultural programme was arranged at Anvaya Beach, Bali on 31st August, 2017.



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Oral Presentation Awards

1. Diva January Aldama-Cano (Mexico/Thailand)
2. Tran Bao Hung (Taiwan)
3. Pattana Jaroenlak (Thailand)



Poster Presentation Awards

1. Shu-Ting He (Taiwan)
2. Pakpoom Boonchuen (Thailand)
3. Yuki Ikari (Japan)



7.2 Asian Fisheries Social Science Research Network

The Asian Fisheries Social Sciences Research Network Section (AFSSRN) was established in 1996. Prior to this, it was a research network launched as a project of ICLARM (now the WorldFish Center) in 1983 to address the need to enhance social science research capabilities of relevance to capture fisheries, coastal resource management and aquaculture in Asia. ICLARM actively coordinated the Network from 1983-1996. AFSSRN received funding support from ICLARM, IDRC and the Ford Foundation, and evolved through four Phases of Social Science research and training/capability-building components.

Phase 1 focused on fisheries economics; Phase 2 focused on key issues affecting the development of capture fisheries and aquaculture (technology, fish marketing and resource management); Phase 3 focused on the social science aspects of fisheries and aquaculture resources management; and Phase 4 addressed policy analysis and social science research applicable to fisheries and coastal resource management.

By the time IDRC support ended in 1996, the Network consisted of 15 research teams, totaling more than 80 researchers, at universities, research institutions and government fisheries agencies in Indonesia, Malaysia, Thailand, the Philippines and Vietnam.

In an attempt to sustain the Network, ICLARM provided some funds for one annual training and team leaders meeting, at which it was agreed that AFSSRN would apply to become a section of the Asian Fisheries Society. With the acceptance by AFS, the Network drew up a Constitution, consequently approved in Bali, Indonesia in March 1996. In this Constitution, ICLARM accepted a lead role, specifically to serve as Vice-Chairman of the executive committee. ICLARM staff would continue to provide technical guidance to the AFSSRN and also publish AFSSRN News in NAGA, ICLARM's quarterly publication. Dr. Nik Mustapha Abdullah was elected as the Chair of the Network and the Vice-Chair was filled by Dr. Kuperan Viswanathan of the WorldFish Center.

In 1997, an AFSSRN meeting was held in Phuket, Thailand. In November 1999, a special session of the AFSSRN on “Socioeconomics Issues in Fisheries in Asia” was organized at the 5AFF in Chiang Mai, Thailand. Section members who attended the Fisheries Co-management Research Workshop at the Coastal Resources Institute (CORIN), Prince of Songkla University, Hadyai, Thailand during 2nd-7th October, 2000 were also involved in undertaking research for the phase two of the Coastal Resources Co-management Project undertaken by WorldFish Center.

In 2006, AFS tasked Dr. Ida Siason of University of the Philippines Visayas to reactivate the Section as a vehicle to strengthen Social Science analysis in fisheries and aquaculture research. In 2007, during the 8AFF at Kochi, India, a meeting was held among social scientists to discuss possible ways forward. The follow-through discussions on this were carried on through email. Another meeting was held with social scientists of Shanghai Ocean University in 2009, to stimulate interest in the Section in anticipation of the 9AFAF to be held in Shanghai in 2011. Furthermore, a core group from several countries with AFS members was formed to anchor the Section interest, and the members agreed to be the Section’s resource person on matters pertaining to social science concerns in their geographic area.

In September 2010, AFS appointed Dr. Nerissa Salayo of SEAFDEC (Aquaculture Department in the Philippines) to be the Coordinator of the AFSSRN. However, in mid-2012 Dr. Salayo asked to be relieved of the coordinatorship for personal reasons. In order to reactivate the Social Science Section, the 12th AFS Council gave responsibility to Dr. Alice J. Ferrer, Vice President, AFS to lead.



Meeting of the Fisheries Social Science Group during 8AFAF in Kochi, India in 2017



Meeting of the Social Science Group at the SHOU in 2010

The reactivation of the AFSSRN will enable the network to tap the potentials of scientists in the member countries and build their capabilities to deliver better science in the sector. The following objectives on which AFSSRN was established continue to be relevant, given the new challenges in the dynamic fisheries and aquatic resources sector:

- To promote effective interaction and cooperation among persons involved in living aquatic resources social sciences research.
- To encourage and promote investigation and advances in knowledge of living aquatic resources social sciences.
- To focus attention on living aquatic resources social sciences problems by disseminating technical and other information on all aspects of living aquatic resources social sciences and management; and
- To promote the proper use of living aquatic resources social sciences research practices and results in the region.

The newly elected Officers of the Asian Fisheries Social Science Research Network (AFSSRN) for the period 2018-2019 are as follows:

Chairperson: Dr. Alice Joan Ferrer, University of the Philippines Visayas, Iloilo City, Philippines

Vice-Chairperson: Dr. Marietta Sumagaysay, UPV, UPV Tacloban College, 6500 Tacloban City, Leyte, Philippines

Secretary/Treasurer: Dr. Alita Roxas, Director for Graduate Studies of Mindanao State University-Iligan Institute of Technology

Elections Coordinator: Dr. Nikita Gopal, Principal Scientist, ICAR-Central institute of Fisheries Technology, Cochin, India

Constitution Coordinator: Dr. A.K. Pathak, Senior Scientist, ICAR-National Bureau of Fish Genetic Resources, Lucknow, India

Conference Coordinator: Dr. Gay Defiesta, UPV, General Luna St., 5000, Iloilo City, Philippines

Membership Coordinator: Ms. Jinky Hopanda, Researcher, UPV Foundation, Inc (UPVFI), Miagao, Iloilo, Philippines

Information Coordinator: Mr. Benedict Mark Carmelita, Researcher, UPV Foundation, Inc (UPVFI), Miagao, Iloilo, Philippines



Dr. Alice J. Ferrer



Dr. Marieta B.
Sumagaysay



Dr. Alita Roxas



Dr. Nikita Gopal



Dr. Ajey K. Pathak



Dr. Gay Defiesta



Ms. Jinky Hopanda



Mr. B.M Carmelita

Office Bearers of the Asian Fisheries Social Science Research Network (AFSSRN) for 2018-19

7.3 Gender in Aquaculture and Fisheries Section (GAFS)

In 2017, the Asian Fisheries Society welcomed a new formal Section, the Gender in Aquaculture and Fisheries Section (GAFS). This Section had been recommended in late 2014 by the informal networks meeting at GAF5 in Lucknow during 10IFAF, and was approved to go ahead by the AFS Council in 2016. The GAF Section grew out of the informal network that organised many professional events under the auspices of AFS, tracing its earliest efforts back to 1990 with a workshop at the 2nd Indian Fisheries Forum (see the milestones: <https://www.genderaquafish.org/gaf-section/milestones/>).

The Objectives of the GAF Section are to: (1) promote equitable effective interaction and cooperation among experts involved in related to gender in fisheries and aquaculture issues so as to advance research and practice in Asia-Pacific and other regions of the world; (2) give greater visibility to the importance of incorporating gender in fisheries and aquaculture interventions and to contribute to the development of these issues; (3) advocate for the advancement of women within fisheries and aquaculture; and (4) promote the establishment of local networks of individuals and organizations involved in gender issues in the fisheries and



aquaculture sectors and to collaborate and cooperate with other networks and civil society organizations with similar objectives. In 2017, with approved By Laws, volunteer members of the GAF Section formed a set of Inaugural Officers to oversee the election of the first full Executive Committee. The Inaugural Officers were: Dr Meryl Williams, Dr Nikita Gopal, Dr Kafayat Fakoya, Dr Mohammad Nuruzzaman, Dr Alice Ferrer, Dr B. Shanthi and Dr Danika Kleiber. The first election, held in 2017, elected Dr Meryl Williams (Chair, Australia), Dr Nikita Gopal (Vice Chair, India), Dr Kafayat Fakoya (Secretary, Nigeria), Dr Arlene Nietes Satapornvanit (Inaugural Treasurer, Thailand/Philippines), Dr Mohammad Nuruzzaman (Bangladesh), Dr Alice Ferrer

(Philippines), Dr Danika Kleiber (USA), Professor Kyoko Kusakabe (Japan), Professor Indah Susilowati (Indonesia) and Surendran Rajaratnam (Malaysia).

The official launch of GAF Section was held at 11IFAF, 21 November, Kochi. Under the chairmanship of Dr J.K. Jena, President of AFS and AFSIB, Smt. J. Mercykutty Amma, Minister for Fisheries, Harbour Engineering and Cashew Industry, Kerala officially launched the GAF Section by releasing the Logo and the design of the GAF Section website. Also formally released were two publications from the 6th Global Symposium on Gender in Aquaculture & Fisheries (GAF6) held at Bangkok, Thailand. Prof. K. V. Thomas, Member of Parliament officially released the Asian Fisheries Science Special Issue 30S (2017): Gender in Aquaculture and Fisheries: Engendering Security in Fisheries and Aquaculture, comprising peer reviewed papers of presentations made at GAF6. In addition, a colourful presentation book – Artworks of School Children - was released by the Director General, ICAR- Dr. Trilochan Mohapatra.

At 11IFAF, the GAF Section convened GAF-India and related activities, and a special meeting of the Executive Committee decided to convene the 7th International Conference on Gender in Aquaculture and Fisheries (GAF7), AIT, Bangkok, as a standalone event in October 2018.



Above: Smt. J. Mercykutty Amma, Kerala Minister of Fisheries, launching the GAF Section. On the stage, L to R, were: Professor Shamasundar, Secretary AFSIB, Dr. J.K.Jena, DDG (Fisheries), ICAR and President, AFS; Dr. Trilochan Mohapatra, Secretary (DARE) and Director General, ICAR; Smt J. Mercykutty Amma, Minister for Fisheries, Harbour Engineering and Cashew Industry, Kerala; Prof. K.V.Thomas, Member of Parliament; Dr. A. Gopalakrishnan, Director, ICAR-CMFRI; and Dr. C. N. Ravishankar, Director, ICAR-CIFT and Convener. 11IFAF.

At GAF7, the GAF Section held its first General Assembly of attending members. Following the success of GAF7, in early 2019, the GAF Section Executive Committee is now leading the Section into more and diverse activities that will focus on partnerships, capacity building and other project work designed to improve gender equality in aquaculture and fisheries.

As a specialist Section of AFS, the GAF Section aims to contribute to the AFS vision through its own work and through collaborating with other AFS specialist and national sections/branches and conferences. It will work in close collaboration with the Asian Fisheries Social Science Research Network and strengthen its links with ISAFE and other activities of AFS.



GAF Section members who attended the first Section General Assembly, 18 October 2018, at the Asian Institute of Technology, Bangkok, Thailand, held during GAF7. The full GAF Section Executive Committee is seated in the front. AFS Council was represented by Dr Nicholas Paul, 3rd from left standing at the back.

7.4 Asian Fisheries Society Taiwan Branch

The Asian Fisheries Society Taiwan Branch (AFSTB) is the Society's first branch, founded in September 1985 at the Institute of Fisheries Sciences, National Taiwan University. By 2016, the Branch has 72 active members and is having a very healthy financial status.

The Branch has been actively supporting the Society by generating much needed funds through a series of activities in Taiwan. One way is to host and support the Society's meetings such as; the 2nd and 9th Council meetings in 1985 and 1991, respectively. The second way is by holding symposia and meetings in Taiwan, *e.g.*; the International Symposium on Biotechnology Applications in Aquaculture in 1994, the First International Symposium on Cage Aquaculture in Asia in 1999, the 6th Asian Fisheries Forum in 2001, and the 7th Symposium on Diseases in Asian Aquaculture in 2008. Further, the AFSTB fully or partially fund various Society's publications such as the Society's Journal-Asian Fisheries Science, books, proceedings as well as AFS Yearbook. The latest scientific publications are three books edited by I. Chiu Liao and Eduardo M. Leao and published jointly by National Taiwan Ocean University, The Fisheries Society of Taiwan, Asian Fisheries Society and World Aquaculture Society. They are (1) *Cobia Aquaculture: Research, Development and Commercial Production* (2007, ISBN 978-986-00-8663-8), (2) *The Aquaculture of Groupers* (2008, ISBN 978-986-01-4431-7), and (3) *Milkfish Aquaculture in Asia* (2010, ISBN 978-986-02-2610-2).

More than sixty scientists and members participated Asian Forum of Aquaculture and Fisheries held in Shanghai Ocean University, Shanghai, China during 20th-24th April, 2011. Annual scientific meeting of Fisheries Society of Taiwan was held in National Sun Yat-Sen University, Kaohsiung, Taiwan on 3rd December, 2011, and more than 300 papers were presented. Annual scientific meeting of Fisheries Society of Taiwan was held in National Taiwan Ocean University on 19th January, 2013. Three hundred and sixty four abstracts were presented and published in the "Program and Abstracts". Dr. Yu-Hung Lin, Secretary of AFSTB grouped 38 academic and industrial members from AFSTB to attend the 9th Symposium of World's Chinese Scientists on Nutrition and Feeding of Finfish and Shellfish held during 12th-16th November, 2013 in Xiamen, China.

Dr. Lin further grouped 53 academic and industrial members from AFSTB to attend the 10th Symposium of World's Chinese Scientists on Nutrition and Feeding of Finfish and Shellfish held at Wuhan, China during 22nd-26th October, 2015. They reported 31 papers in the meeting. This meeting brought together about 1,350 aquaculture nutritionists globally to discuss progress in fish and shrimp nutrition.



AFSTB organized an Annual Meeting at the National Pingtung University of Science and Technology in January, 2016, which brought together about 400 attendees from all sectors of fisheries. A total of 222 reports including one keynote speech, 90 oral presentations and 131 posters was presented. Discussion on the registration of the Branch members to attend the 11th Asian Fisheries and Aquaculture Forum in Bangkok, Thailand was also discussed. The Taiwan Fisheries Society annual meeting was held at the National Taiwan Ocean University on 17th January, 2017. AFS Taiwan Branch has organized a parallel meeting during this conference.



50th Council meeting of Asian Fisheries Society was held at Tainan, Taiwan on 28th April, 2017. The meeting was hosted by the Councillor 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.

The Taiwan Fisheries Society Annual Meeting was held at the National Kaohsiung Marine University on 23rd January, 2018. AFS Taiwan Branch has organized a parallel one-hour meeting during this conference. The Chair Prof. Hwang reported the status of Taiwan Branch and discussed the up-coming 12th Asian Fisheries and Aquaculture Forum and Councillor's election during 8th-12th April, 2019 in Iloilo City, Philippines. Proposal for hosting the 4th International Symposium on Aquaculture and Fisheries Education (ISAFE4) in 2021 and 13th Asian Fisheries and Aquaculture Forum (13AFAF) in 2022 by the National Pingtung University of Science and Technology and National Cheng-Kung University was also agreed during the meeting.



Dr. Chao N.S., Dr. Liao I. C., Dr. Chen J.C. and Dr. Tseng W.N. attended the 9AFAF in Shanghai (2011)



Participants from Taiwan Branch Shanghai Ocean University, Shanghai, China (2011)



Participants of Taiwan Branch attended the welcome party Hosted by President Shanghai Ocean University (2011)



Participants from Taiwan Branch attended the 10th AFAF at Yeosu, Korea (2013)



International Conference on Challenges in Aquatic Sciences organized by Chairman of Committee Members and Dr. Huang Jiang-Shiou



Dr. Chang Ching-Fong (left third) taking over as the President of Fisheries Society of Taiwan from Dr. Lee Kuo-Tien (left sixth) (March, 2013)

AFS Taiwan Branch

Mailing Address:

Asian Fisheries Society Taiwan Branch
Department of Aquaculture
College of Life Sciences National Taiwan Ocean
University No. 2 Pei-Ning Road
Keelung 202, Taiwan
Telephone: 886-2-2462-2192 Ex 5205
Fax: 886-2-2462-0295

7.5 Asian Fisheries Society Indian Branch

The Asian Fisheries Society Indian Branch (AFSIB), founded in 1986 at the College of Fisheries, University of Agricultural Sciences, Mangalore, Karnataka State, is one of the most successful branches of the Society. It has over 350 active members from all over the country.

In December 1987, the Branch successfully organized the 1st Indian Fisheries Forum in Mangalore. The event was well attended by scientists and professionals representing diverse sectors of fishery science. This was followed by the equally successful successive fora, 2nd Indian Fisheries Forum at Mangalore, Karnataka (1990); 3rd Indian Fisheries Forum at Pantnagar, Uttar Pradesh (1993); 4th Indian Fisheries Forum at Kochi, Kerala (1996); 5th Indian Fisheries Forum at the Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar, Orissa (1999); 6th Indian Fisheries Forum at the Central Institute for Fisheries Education (CIFE), Mumbai (2002); 7th Indian Fisheries Forum at Bangalore, Karnataka (2005); 8th Indian Fisheries Forum at Kolkotta, West Bengal (2008); and 9th Indian Fisheries Forum at Chennai, Tamil Nadu which was organized by the Central Marine Fisheries Research Institute(CMFRI) (2012). All these fora had more than 500 participants, including students, researchers, and managers, policy makers from within the country and also from the Indian subcontinent. The 30th AFS Council meeting was held in conjunction with the 7th IFF to strengthen interaction of the Society with its Indian Branch.



The 10IFAF (Indian Fisheries Forum renamed as the Indian Fisheries and Aquaculture Forum) was held during 13th-15th November, 2014 at the ICAR-National Bureau of Fish Genetic Resources (NBFG), Lucknow India. Further, the 11IFAF was held at Kochi, Kerala during 21st-24th November, 2017, which was organised by the ICAR-Central Institute of Fisheries Technology (CIFT), India. During each forum, young scientists are selected to receive Young Scientist Awards and individuals who have contributed

to the development of the Society are presented with the Dr. K. C. Nayak Memorial Award. In 1993, the Prof. H.P.C. Shetty Award for excellence in fisheries research and/or development was instituted. All these awards are distributed during the IFF. Also, the Indian Branch announced formation of a corpus for funding international travel of student members for presentation of papers at the international AFAF held once in three years.

The Indian Branch has sponsored several technical workshops on relevant topics such as exotic aquatic species in India, carp seed production technology, reservoir fisheries, aquaculture in Asia, fish nutrition, aquaculture economics, environmental impact of coastal aquaculture, fisheries management, freshwater prawn farming, aquaculture in the third millennium and science, technology coastal zone management and policy. Workshop and Forum proceedings are published and made available to the fisheries community at reasonable cost.

Upon request from various agencies the Branch has undertaken projects on the development of techniques for breeding carps with Ovaprim; a survey on carp culture systems in Andhra Pradesh; impact of parasites on reservoir fisheries; and breeding of *Mahseer* in Karnataka. The Branch completed the construction of its headquarters in 1998 situated at the campus of the College of Fisheries, University of Agricultural Sciences in Mangalore. It houses the office of the Branch, a library, a computer room, a meeting hall and the Fishermen Training Centre. Funds for the construction of the training Centre were mobilized by the then Secretary Prof. M. J. Modayil from various sources including the Government of Karnataka, Govt. of India MP's Area Development fund through the courtesy of Shri Oscar Fernandes, M.P. and Shri Dhananjaya Kumar, Member of Parliament.

The AFS entrusted the task of organizing, conducting and managing the 8AFF in 2007 to the Indian Branch (AFSIB). The then Chairperson of the AFSIB, Dr.S.Ayyappan appointed Prof. Mohan Joseph Modayil as the 9AFF Convener. Prof Modayil took up this responsibility and ably organized the 8AFF in the port city of Kochi, India during November 2007. The 8AFF was a grand success where more than 1000 scientists from 33 countries participated in the deliberations. There were 385 foreign delegates while the rest were from the scientific community of the Indian. The refereed and



recommended papers of the Forum were published as Proceedings of the Forum in the form of two issues of the AFS Journal Asian Fisheries Science. The Forum also generated adequate revenue as per the agreement with AFS and transferred the assured funds to the AFS in 2009. The Indian Branch celebrated the Silver Jubilee by holding a Global Symposium on Aquatic Resources for Eradicating Hunger and Malnutrition; Opportunities and Challenges during 4th-6th December, 2012 at Mangalore.

The details of Seminars/Conferences organized by AFSIB in recent past are given hereunder:

10th Indian Fisheries and Aquaculture Forum (10ifaf): The 10ifaf with the theme "Towards Responsible Aquaculture and Sustainable Fisheries" was organized under the aegis of AFSIB during 12th – 15th November 2014. Over 700 distinguished scientists, technocrats, policy makers, members from financial institutions, NGOs, students, farmers and entrepreneurs from all over the country and overseas participated in the Forum. The Forum was inaugurated by the Hon'ble Governor of U.P., Shri Ram Naik. Dr. S. Ayyappan, Secretary DARE and Director General, ICAR presided over by the programme and other dignitaries present were Dr. B. Meenakumari, DDG (F. Sc.), ICAR and Dr. Cherdsak Virapat, DG, NACA, Bangkok as Guests of Honour; Dr. J.K. Jena, Convener, 10ifaf, Chairman, AFSIB & Director NBFGR; and Dr. B.A. Shamsundar, Secretary AFSIB, Mangalore.

The inaugural session followed with two Keynote addresses by Dr. M.V. Gupta, World Food Prize Laureate and former ADG, World Fish, Malaysia on "Responsible Aquaculture: The context and Action Needed" and Dr. M.J. Modayil, Former Member, ASRB, New Delhi and Former Director, CMFRI on "Sustainable Fisheries". There were two Lead Plenary Lectures delivered by international experts like Dr. Virapat and Dr. Chris O'Brien, Regional Coordinator, BOBLME, Thailand. An Evening Plenary Lecture was also delivered by Dr. Meryl J. Williams, Former DG, WorldFish.



The technical programmes of the Forum were conducted in six parallel sessions under different thematic areas. As many as 208 papers were presented as Oral Presentations and 149 were presented as Posters. Besides, several lead lectures were also presented by leading experts of the country. As a parallel event of 10ifaf, an Exhibition with 32 stalls was also arranged for showcasing technologies and products/publications.

The Plenary and Valedictory Session of the 10ifaf was organized on 14th November, 2014. Dr. Raj Sekhar Vundru, IAS, Joint Secretary, DAHDF, Govt. of India was the Chief Guest and Dr. B. Meenakumari, presided over the function. Dr. K.V. Devaraj, Former Vice-Chancellor, UAS, Bangalore; Dr. K. Gopakumar, Former DDG (Fisheries), ICAR and Dr. Mohan J. Modayil, Former Member, ASRB were the Guests of Honour. Two AFSIB Young Scientist awards and 10 poster presentation awards were also bestowed to the winners.



International Workshop on Aquatic Animal Disease Surveillance (IWAADS): The IWAADS was organised by the ICAR-National Bureau of Fish Genetic Resources (NBFG), Lucknow in collaboration with the AFSIB on 14th November 2014, which was inaugurated by Dr. R.S. Vundru, Jt. Secretary, DAHDF, Ministry of Agriculture, Govt. of India, and Dr. B. Meenakumari, DDG (FS), ICAR presided over the function. Other guests present on the dais were Prof. Kenton L. Morgan, University of Liverpool, UK and Dr. Eduardo Leano, NACA, Bangkok as Guests of Honour; Dr. J.K. Jena, Convener and Dr. P. Punia, Co-coordinator, NSPAAD.

During the Workshop, there were lead presentations by Prof. Kenton Morgan and Dr. Eduardo. A Panel Discussion was also organised on 'Aquatic Animal Disease Surveillance in India' by the several national experts on Fish disease management. Over 200 delegates from India and overseas participated in this International Workshop.



National Seminar on Fisheries and Aquaculture: Livelihood security, Sustainability and Conservation: The Symposium was organized at the College of Fisheries, Lembucherra, Tripura during 21st-22nd January, 2016. The event was organized by the North East Society for Fisheries and Aquaculture (India) and AFSIB, in collaboration with Central Agricultural University (CAU), Imphal. Shri Tathagata Roy, the Hon'ble Governor of Tripura inaugurated the Seminar as the Chief Guest. The function was also graced by Dr. J.K. Jena, DDG (F. Sc.), Prof. B.M. Kurup, Vice-Chancellor, KUFOS, Dr. M.P. Singh, Former Vice-Chancellor, CAU, Imphal, Dr. S.S. Baghel, Former Vice-Chancellor, CAU, Imphal, Dr. W.S. Lakra, Former Director/Vice-Chancellor, Central Institute of Fisheries Education, Mumbai, and was presided over by Prof. M. Premjit Singh, Vice-Chancellor, CAU, Imphal.



The Seminar was attended by more than 170 delegates from 20 states and Union Territories including professors, researchers, planners, administrators and officials from different ICAR research institutes, fisheries colleges and industries, state line departments, NGOs, and private sectors and also by 130 UG and PG students.

2nd International Symposium on Genomics in Aquaculture (ISGA-II): The ISGA-II was held at the ICAR-Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar during 28th-30th January 2016. The event was organized by CIFA in collaboration with Association of Aquaculturists, Bhubaneswar and AFSIB, Mangalore.

The Symposium was inaugurated by Dr. J.K. Jena, DDG (F. Sc.), ICAR and Chairman, AFSIB as Chief Guest. The other guests present on the dais were Prof. B. Venkatesh, Professor, Institute of Molecular and Cell Biology, A*STAR, Biopolis, Singapore; Dr. P. Jayasankar, Director, CIFA; Dr. Gopal Krishna, Director and Vice-Chancellor, CI FE; Dr. A.K. Singh, Director, DCFR, Bhimtal; Dr. J.K. Sundaray, Head, Fish Genetics and Biotechnology Division, CIFA; and Dr. B.K. Das, Principal Scientist, CIFA and Secretary, AoA.



The Keynote Address was delivered by Dr. B. Venkatesh. Besides the overseas experts, Dr. Nicholas Robinson, Research Scientist, NOFIMA and Dr. Victor Martinez, Asso. Professor, University of Chile, Santiago; the eminent speakers from the country included senior researchers from ICAR & CSIR Institutes. The Technical Sessions consisted of Molecular Breeding, Genomics in Fish Health, Reproduction and Nutrition, Population Genomics as well as Genome Informatics. There were 9 Lead Lecturers, 23 Oral Presentation and 36 Poster Presentations.

GAF5 and CAA5: The AFSIB collaborated in organization of the 5th International Symposium on Gender in Aquaculture and Fisheries (GAF5) held at Lucknow, India during November, 2014 and 5th International Symposium on Cage Aquaculture in Asia, at Kochi, India during November, 2015.



Group photo of the participants of GAF5



Group photo of the participants of CAA5

11th Indian Fisheries and Aquaculture Forum (11ifaf): The 11th Indian Fisheries and Aquaculture Forum (11ifaf) with the theme “Fostering Innovations in Fisheries and Aquaculture - Focus on Sustainability and Safety” was organized by the Asian Fisheries Society Indian Branch (AFSIB) in collaboration with the ICAR - Central Institute of Fisheries Technology (CIFT), Kochi, Kerala, at the Hotel Le Meridian, Kochi during 21st-24th November, 2017.

The Forum was inaugurated by the Hon’ble Vice President of India Shri M. Venkaiah Naidu on 21st November, 2017. The other important dignitaries present were Shri Justice (Retd.) P. Sathasivam, Hon’ble Governor of Kerala; Smt. J. Mercykutty Amma, Hon’ble Minister for Fisheries and Harbour Engineering, Govt. of Kerala; Dr. K.T. Jaleel, Minister for Local Administration, Govt. of Kerala; Shri K.V. Thomas, Hon’ble MP, Ernakulam; Dr. Trilochan Mohapatra, Secretary, DARE and DG, ICAR, New Delhi; Dr J.K. Jena, DDG (Fisheries Science), ICAR and Chairman, AFSIB; Dr.C.N. Ravishankar, Convener, IFAF and Director, CIFT; and Dr. B. A. Shamasundar, Secretary AFSIB, Mangalore.



The Technical Sessions of the Forum were held under 10 different themes, which covered the entire gamut of fisheries related disciplines. The different sessions were: 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 Processing and Packaging; 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; and 10) Fisheries Trade, Policy and Governance.



A total of 95 eminent personalities from India and abroad Co-Chaired the various sessions and delivered invited lectures under the different themes. About 270 oral presentations were included under different sessions and around 300 posters were presented by the delegates from India and abroad. Invited speakers from abroad were from the United States, Thailand, Kuwait, Canada, Japan, Australia, Indonesia, Sri Lanka and China. Invited speakers were experts in the field who are researchers, policy makers or eminent industrialists and have their standing in their respective fields. The 10 different themes of the Forum were covered through as many as 21 Technical Sessions, conducted in four different halls in parallel.





In addition to the above 10 different sessions, four parallel events were also conducted as part of the Forum, as follows:

- Symposium on “Gender in Aquaculture and Fisheries in India (GAF- India)” organized by the GAF section of the Asian Fisheries Society.
- Regional Dialogue on “Management of Highly Migratory Fish Species in the Bay of Bengal” – organized by Ocean Partnership Project – Bay of Bengal (Opp-Bob).
- Foraging A New Frontier: Increasing Seafood Consumption in India – organized by the Association of International Seafood Professionals.
- Aquaculturists and Seafood Processors Conclave – interaction of aquafarmers, entrepreneurs, scientists, policy makers and other stakeholders.

The Forum provided a comprehensive outlook for the Fisheries and Aquaculture sectors for achieving greater synergy among the stakeholders and planning strategies for capture fisheries and aquafarming to build higher levels of sustainability and profitability in line with Blue Growth Initiative.

The Plenary Session of the Forum was held on 24th November, 2017. Dr. J.K. Jena, President, AFS chaired the session. Dr. Jena highlighted the importance of the event and also gave his concluding remarks. Dr. K. Gopakumar, Dr. Mohan Joseph Modayil, Dr. K.V. Devaraj, and Dr. A. Gopalakrishnan presented their impressions about the event and shared their experience. The best paper awards under the different sessions (Oral and Poster presentations) and the AFSIB Young Scientist Awards were presented during the plenary meeting.



Second National Students Convention on ‘Innovative Approaches for Academic Excellence in Higher Fisheries Education’: The Second National Students Convention on ‘Innovative Approaches for Academic Excellence in Higher Fisheries Education’ was organized by ICAR-Central Institute of Fisheries Education (CIFE), Mumbai in association with Indian Fisheries Association (IFA), Asian Fisheries Society Indian Branch (AFS IB) and Post-Graduate School Students Union (PGSSU) at CIFE, Mumbai during 3rd-5th March, 2017. The objective of this Convention was to provide a platform to students to present innovative approaches in education and research to achieve excellence so as to improve the learning outcomes. About 500 students from fisheries colleges all over India participated with a display of 134 posters highlighting their innovative ideas. The dignitaries present on the occasion and addressed in the inaugural programme were Shri. Mahadev Jagannath Jankar, Minister of Animal Husbandry, Dairy Development and Fisheries Development, Govt. of Maharashtra; Dr. T. Mohapatra, Secretary, DARE and Director General, ICAR; Dr. J.K. Jena, Chairman, AFSIB and DDG (Fisheries Science), ICAR and Dr. Gopal Krishna, Director, CIFE, Mumbai. Dr. Arpita Sharma, Organising Secretary coordinated the overall event.

The exhibition was a grand display of 134 posters prepared by students highlighting innovative ideas to bring excellence in fisheries education and research. It provided an interesting platform for sharing ideas and getting inspired. Two brainstorming sessions on ‘Blue Revolution’ and ‘Higher Education in Fisheries’ were also organised on the occasion.

Workshop on “Biodiversity of River Ganga and its Conservation for Sustainable Fisheries”: For holistic fisheries development of River Ganga, a Workshop on ‘Biodiversity of river Ganga and its Conservation for Sustainable Fisheries’ was organised by the ICAR-Central Inland Fisheries Research Institute (CIFRI) in collaboration with the National Mission on Clean Ganga (NMCG), Inland Fisheries Society of India (IFSI), Barrackpore and the Asian Fisheries Society Indian Branch (AFSIB) at ICAR-CIFRI on 15th March, 2018. Dr. B. K. Das, Director, ICAR-CIFRI and President, IFSI welcomed the participants. Prof. R. K. Sinha, Vice Chancellor of the Nalanda Open University, Bihar and Dr. J.K. Jena, DDG (Fisheries Science), ICAR, New Delhi and Chairman of AFSIB addressed to come out with a pragmatic roadmap for River Ganga. Over 200 delegates participated in the Workshop.



Involvement of AFSIB in other programmes

AFSIB Co-sponsored a 3-day National Conference on 'Ecosystem Conservation and Sustainable Development (ECOCASD)' with the theme 'Eco-restoration for Sustainable Development' during 27th-29th November, 2018, which was organised by AET group of Institutions at Bangalore. The Conference was inaugurated by Dr. S. Ayyappan, Chancellor of Central Agricultural University, Manipur and former DG, ICAR, in which Dr. P. Keshavanath, Secretary, AFSIB represented from the Society.



Dr. S.N. Hegde lighting the lamp at inauguration of ECOCASD

Executive Committee of AFSIB

The General Body Meeting of Asian Fisheries Society Indian Branch (AFSIB) was held on 23rd November, 2017 at Kochi, Kerala during the 11th Indian Fisheries and Aquaculture Forum (11ifaf) and following New Office Bearers were elected for the period 2017-2020.

Chairman : Dr. J. K. Jena, Deputy Director General (Fisheries Science), ICAR, New Delhi

Vice-chairman: Dr. A. Gopalakrishnan, Director, CMFRI, Kochi

Vice-chairman: Dr. B.A. Shamasundar, Former Professor and Head, CoF, Mangalore

Secretary : Dr. P. Keshavanath, Former Dean, CoF, Mangalore

Treasurer : Dr. Girisha S.K, Asst. Professor, CoF, Mangalore

Executive Committee Members:

1. Dr. G. Jayasekaran, Director of Research, Tamil Nadu Fisheries University, Nagapattinam, Tamil Nadu
2. Dr. Satyen Kumar Panda, Senior Scientist, CIFT, Matsyapuri P. O, Kochi, Kerala
3. Dr. Mridula Rajesh, Asst. Professor, College of Fisheries, Mangalore, Karnataka.
4. Dr. P. K. Pradhan, Senior Scientist, NBFG, Canal Ring Road, P.O. Dilkusha, Lucknow, U.P.

AFS Indian Branch

Mailing Address

Dr. P. Keshavanath, Secretary AFSIB,
Department of Fish Processing Technology
College of Fisheries (Technology Campus)
Hoige Bazaar, Mangalore 575 001, Karnataka, India
Tel No. (+91-824) 439-322
Fax No. (+91-824) 438-366; Mobile: +91- 9448250057
E-mail: bashamasundar@rediffmail.com

7.6 Asian Fisheries Society Japan Branch

The Asian Fisheries Society Japan Branch (AFSJB) was established in 1994 with about 100 members mostly from universities, governmental agencies and companies, specializing in various fields of fisheries research, education and development activities.

Four years after the establishment of the Asian Fisheries Society, the Second Asian Fisheries Forum was held in Tokyo in 1988. This event was the best opportunity to establish the Branch structure, where many Japanese researchers, scientists and professors as well as students majoring in fisheries were given the opportunity to notice the necessity and importance of international communication in fisheries science especially in tropical and subtropical areas.

The Branch processes membership applications to the Society, distributes the Branch newsletters, The Branch organized the International Seminar on Aquaculture in Asia in August 1997, as the first Branch event. This covered two special topics: (1) Aquaculture in Asia, and (2) Sea Farming in Japan. The following Societies and Organizations provided supports to the Branch: Japan Society for the Promotion of Science (JSPS); Tokyo University of Fisheries; Japan Society of Fisheries Science; Japan Society of Aquaculture and the Japan Society of Fisheries Engineering.

Although the number of the Branch members is rather stable since the beginning, the members have been actively involved in the Society events through the Forum Workshops and Section activities. In the 5AFF held in Chiang Mai, Thailand in 1998, Japanese participants reached around 80. During the 5AFF, Prof. A. Kanazawa, one of the founding members of the Japan Branch, was honored to the Gold Medal Award for his contribution to the Kanazawa Foundation. He also received certificate of appreciation from the Society in his death in 2009. His lofty ideal and high integrity are pride of Japanese member.

AFS activities can create the good learning opportunity for the International Cooperation. Branch members are now strongly involved in the coordinating activities with foreign scientists, technical cooperation and international collaboration in fisheries education. Particularly, some members working in higher education bodies have strong interest in international collaboration in higher education in universities and graduate schools in foreign countries. The Japan Branch offers the information and access

to them for enhancing the cooperation program with Asian countries through the establishment of the better working mechanisms for collaboration.

The Japan Society of Fisheries Science had the 5th World Fisheries Congress in 2008. Most of the members of the branch actively joined the congress and supported the organizing committee of the congress and had a meeting concerning future collaboration in fisheries education. Japan was struck by catastrophic earthquake and tsunami on 11th March, 2011, and accidents in Fukushima Atomic Power Plant caused serious social unrest not only in Japan but also in East Asia. Many Japanese scientists labored for clarification of damages of coastal ecosystem, researches concerning diffusion of radioactive substances in aquatic ecosystem, improvement of risk communication system and skill in society, construction of new distribution systems, and improvement of resilience in coastal communities, as well as reconstruction of coastal fisheries industries and communities. Needless to say, disaster itself is tragedy, though it provided good opportunities of problem based learning to Japanese fisheries scientists. Many serious discussions have rose through the process of those researches among fisheries scientists, ecologists, biologists, marine physicists, economist, sociologists, educators and politicians. We can expect creation of new scientific field through those discussions. The new field will contribute sustainable development of fisheries industries and coastal communities, resilience of coastal life and improvement of our quality of life in future world. Several scientific reports of such studies were published in 2012.

The Japan Branch was making efforts to transmit such information to all over the world. International scientific forums are good opportunity for transmission. However, active members of the Japan Branch have decreased over the years and therefore are not able to host international scientific forum independently.

AFS Japan Branch

Mailing Address:

AFS Japan Branch Office, C/o Dr. Hisashi Kurokura
Exhibition Technologies Inc. 8-5-26 Akasaka
Minato-ku Tokyo 107-0052, Japan
Tel: +81-3-5775-2855, Fax: +81-3-5775-2856

8. Developing Young Scientists

The AFS Research Fellowship Awards

The Society operate a Research Fellowship Awards Scheme that aim to upgrade the quality of research in the region by providing financial and technical support to promising young fisheries scientists from developing Asian nations who wish to undertake aquaculture or fisheries research. A grant of up to US\$12,000/year and the technical guidance of scientific advisers are made available to successful applicants to enable them to conduct well-designed, properly planned research. This is intended to improve the outputs and add to the wealth of scientific knowledge of relevance to fisheries development.

In the past, throughout the duration of their research project, grant recipients coordinate closely with designated advisers selected from a panel of 40 of the Society's senior scientists, whose functions to assess critically the

Fellowship Grant Awardees

Mohd. Akand Awal, Bangladesh	Subhash C. Chakraborty, Bangladesh
Wang Hui, China	Armando Fermin, Philippines
Soosama Kavumpurath, India	Zhang Si-Ming, China
Upali S. Amarasinghe, Sri Lanka	Yusni Ikhwan Siregar, Indonesia
Yan Xinhong, China	Nicholas Khong Mun Hoe, Malaysia
Arsenia Cagauan, Philippines	Nur Leena Wong Wai Sin, Malaysia
Kang Chunxiao, China	Sheela Gnanapackiam, India
Mohd Ferdous Alam, Bangladesh	Sekmar Meharajan, India
Ma. B. De Venecia, Philippines	Tanza Erlambang, Indonesia
Liu Jiashou, China	Wu Hui, China
Nguyen Anh Tuan, Vietnam	Lin Xin-Wei, China
Toata Molea Solomon, Islands	Zhang Ying-Pei, China
H. Nainggolan, Indonesia	Prapaporn Utarabhand, Thailand
Eko Basuki, Indonesia	Kalkuli M. Shankar, India
P.T. Usha, India	Zhu Songming, China
Rosalind G. Mulloorpeedikayil, India	Patcharee Teerasuntonwat, Thailand
Zhang Weimin, China	Ju Bensheng, China
Arfah Harton, Indonesia	Jamilah Binti Bakar, Malaysia
Md. Kamal, Bangladesh	Wang Han-Ping, China
H. Shivananda Murthy, India	Harjeet Singh Sehgal, India
Li Fu-Hua, China	Chadag Mohan, India
Ramesh Ramachandran, India	Fu Hongtuo, China

research progress of the awardees and to provide technical advice. The expertise provided by these scientific advisers has proven invaluable to the success of the scheme. Since the scheme established in 1988, 42 grants worth over US\$380,000 have been awarded, mostly to new Ph.D. or M.Sc. graduates, or to postgraduate students doing research leading to a Ph.D. or M.Sc. degree. The output, in general, has been of high quality with significant impact and results.

In addition, most of the successful fellows have been given promotions in rank at their respective institutions, while some received special citations and awards for their studies. Awarding of fellowships are based on the nature and quality of the proposals on a competitive basis. Applicants were citizens of nations in Asia, preferably less than 40 years of age and attached to a university, research institution or fisheries-related agency in Asia. A Review Committee evaluate proposals and monitor research progress of fellows. In the earlier days of the Society, funding for the awards was provided by the International Development Research Centre (IDRC) of Canada, the International Foundation for Science (IFS), the Philippine Council for Aquatic and Marine Research and Development (PCAMRD), the Aquaculture Department of the Southeast Asian Fisheries Development Centre (SEAFDEC), Philippines, and the Taiwan Fisheries Research Institute (TFRI).



Signing of the MOU between the Society and the International Foundation for Science. (L-R) Then President, Dr. Chua Thia-Eng, IFS Director, Dr. Jaan Tear, Drs Khoo Hong Woo, Yu Swee Yean, T.J. Pandian, Sena De Silva and Mohd. Shariff



Signing of the Memorandum of Understanding between the Society and the Kanazawa Foundation (Front L-R) Drs Mohamed Shariff, Prof. Akio Kanazawa, (Back L-R) S.C. Pathak, Yew-Hu Chen, Kamonporn Tonguthai and Efren Flores



Approval to provide scholarships from the Kanazawa Fund was finalized during the 30th Council meeting at the 7th IFF, Bangalore, India November 2005 (Sitting L-R) Drs. Fatimah, Lee, Hashim and Siason, (Standing L-R) Drs. Yangyi, Zhou, Shiau, Piyatiratitivorakul and Kurokura

A generous commitment from the Kanazawa Foundation to support future awards was formalized through a MOU and approval to provide scholarships from the Kanazawa Trust Fund was finalised by the 8th Council during the 30th Council meeting in Bangalore, India in November 2005. From 2007 onwards, fellowships awards were provided via bank interests earned from the Kanazawa Trust Fund established by the Society. Mr. Sekar Meharajan was awarded a scholarship of US\$3,000 to assist his research on replacing dietary proteins by carbohydrate sources in order to reduce feed costs was announced at 8AFF and awarded in 2009. During 9AFAF in April 2011, Mr. Nicholas Khong Mun Hoe and Ms. Nur Leena Wong Wai Sin were awarded a scholarship of US\$4,000 to assist their projects and attended the 9AFAF in Shanghai.

During 10AFAF held in April, 2013, Ms. Foo Su Chem was awarded the Kanazawaa Scholarship for her project entitled Stability and quality enhancement of Microbial carotenoid rich fractions. During 11AFAF held at Bangkok during August 3rd-7th, 2016, Ms. Aslizah Binti Mohd Aris from University Putra Malaysia, Malaysia and Mr. Rajesh M. from ICAR-Directorate of Coldwater Fisheries Research, India was awarded with Kanazawa Research Fellowship. They were invited to the 11AFAF also and provided grant of US\$ 5000 each for undertaking the research projects. The selection process for two new scholars has been completed. Ms Nur Jasmin Mohd Yaminudin from Universiti Putra Malaysia and Ms Manisha Gupta, ICAR-Directorate of Coldwater Fisheries Research, India have been selected for the Kanazawa Research Fellowship Grant of US\$ 5000 each, who would be awarded during the 12AFAF in April, 2019 in Iloilo, Philippines. They are also invited to participate in 12AFAF for which they would be provided with travel support of US\$ 1,500 each.

9. Addressing Fisheries Issues

The Society uses its strength as an organized group of Asian fisheries scientists to make itself heard in the face of significant fisheries-related problems affecting the region. By actively contributing to discussions on fisheries issues throughout Asia, the Society seeks to create public awareness of the importance of sound utilization, cultivation, conservation and development of aquatic resources. The Society's policy is that its statements reflect strictly professional scientific viewpoints free from political overtones.

The Society is actively represented by its Councillors and office bearers in international fora (e.g., the World Fisheries Congress). The papers presented in these fora form the basis of position papers to be presented by the Society on relevant concerns such as the introduction of exotic species, the fisheries education system, resources allocation, biotechnology, donor assisted fisheries projects and women in fisheries.

Workshops/Seminars/Symposium

The Society and its Branches also conduct regular workshops/Seminars/Symposium to address important issues pertaining to fisheries in the region. The proceedings are published and have been made available free to Society members upon request.

- **The Workshop on Fish Quarantine and Fish Diseases in South and Southeast Asia** (May 1986, Manila, Philippines) helped to promote research on fish diseases and to create an awareness of the importance and need for quarantine and/or certification programs to prevent the introduction of exotic fish pathogens.
- **The Workshop on the Introduction of Exotic Aquatic Species in Asia** (June 1988, Darwin, Northern Territory, Australia) reviewed the impact of species transfer in Asia and explored appropriate measures to minimize its adverse effects.
- **The Second Fisheries Resource Allocation Workshop** (October 1990, Beijing, China) stressed the need for economic inputs and assistance from local economists in data collection and analyses. The first workshop (April 1990, Singapore)

addressed the issue of fisheries resource allocation in the region and its long-term implications for government policies, fisheries and donor agencies in the fund allocations for research and development.

- **The Second Workshop on Fisheries Education and Training in Asia** (October, 1991; Taipei, Taiwan) focused on guidelines for the development of fisheries education curricula at various academic levels. The first workshop (May 1987, Japan) considered the issue of a standard fisheries curriculum and identified the need to upgrade fisheries education systems in the region.
- **The Fifth Asian Fish Nutrition Workshop** (January, 1993; Udorn Thani, Thailand) was part of a series of workshops to develop a coordinated regional fish nutrition research program in Asia. Discussions tackled current research in relation to finfish culture, and emphasized on-farm research in relation to semi-intensive culture systems, the predominant form of culture in the region. The Sixth Asian Fish Nutrition Workshop was held in May 1995 in Phnom Penh, Cambodia.
- **The International Symposium on Biotechnology Applications in Aquaculture** (December 1994, Taipei, Taiwan) presented an overview of the state-of-the-art in selected fields of biotechnology applications in aquaculture.
- **International Seminar on Aquaculture in Asia** (19th-22nd August, 1997, Tokyo, Japan) presented the status and future prospects of aquaculture industry in Asia.
- **The International Symposium on the Role of Women in Asian Fisheries** (13th November 1998, Chiang Mai, Thailand), covered country papers highlighting on the roles and contribution of women and the complexity of gender issues in the fisheries sector.
- **The First International Symposium on Cage Aquaculture in Asia** (2nd-6th November, 1999, Tungkang, Taiwan) jointly organized with the Southeast Asian chapter of the World Aquaculture Society presented the status and future directions of cage farming in Asia. Highlights on farming in other parts of the world were also presented.
- **The Fourth Symposium on Diseases in Asian Aquaculture** (22nd-26th November, 1999; Cebu, Philippines) was organized by the Society's Fish Health Section. It reviewed the status of fish and shellfish diseases and health management in Asia. The 3rd Symposium was held in Bangkok, Thailand in January 1996. The 2nd Symposium on Diseases in Asian Aquaculture (October 1993, Phuket, Thailand). The 1st Symposium was held in Bali, Indonesia in November 1990.

- **Global Symposium on Women in Fisheries** (29th November 2001, Kaohsiung, Taiwan) held in conjunction with the 6th Asian Fisheries Forum. Papers addressed issues not only primarily on women at the Asian level, but moved towards issues at the global level. The symposium was attended by participants from both the East and the West.
- **Global Symposium on Gender and Fisheries** (1st-2nd, December, 2004; Penang Malaysia) held in conjunction with the 7th Asian Fisheries Forum. The symposium focused not only on women in fisheries but extended the discourse towards gender and fisheries. How are women and men affected by differential use and access to fisheries resources and development? How can gender inequities be effectively addressed through better research?
- **The Sixth Symposium on Diseases in Asian Aquaculture** (25th-28th October, 2005; Colombo, Sri Lanka) organized by Fish Health Section of the Asian Fisheries Society focused on strategies for improving aquatic animal health in Asia.
- **The Second International Symposium on Cage Aquaculture in Asia** (CAA2) (3rd-8th July, 2006; Hangzhou, China) highlighted a few major key issues in cage aquaculture such as recent advances and innovations, potentials, challenges and problem. A Global Review on Cage Aquaculture was presented by FAO and the report published separately as a special publication of FAO.
- **The Seventh Symposium on Diseases in Asian Aquaculture** (DAA7) (22nd-26th June, 2008; Taipei, Taiwan) organized by Fish Health Section of the Asian Fisheries Society presented recent research findings, exchange ideas and establish new collaboration among world's leading scientists and students working in aquatic animal health.
- **The International Symposium on Aquaculture and Fisheries Education** (ISAFE) (27th-30th November 2009, Bangkok, Thailand) jointly organized with Asian Institute of Technology and Shanghai Ocean University focused on information exchange among educators, policy makers and industries of recent advances of aquaculture and fisheries education in Asia and other parts of the world.
- **9th International Symposium on Tilapia in Aquaculture** (ISTA9) (April 2011, Shanghai, China) held with 9AFAF with the theme Better Science, Better Fish, Better Life.
- **4th International Symposium on Stock Enhancement & Sea Ranching** (4ISSESR) (April 2011, Shanghai, China) held with 9AFAF and the themes are for restocking, stock enhancement and sea ranching into account.

- **3rd Global Symposium on Gender in Aquaculture and Fisheries** (21st-23rd April, 2011; Shanghai, China) organised as a side event of the 9th Asian Fisheries and Aquaculture Forum discussed the gender gap in the fish sector. A FAO Special Workshop was also organised on Future Directions for Gender in Aquaculture and Fisheries Action, Research and Development on the occasion.
- **The 3rd International Symposium on Cage Aquaculture in Asia (CAA3)** (17th-19th November, 2011; Kuala Lumpur, Malaysia) organised by the Malaysian Fisheries Society (MFS) in partnership with Universiti Putra Malaysia (UPM) and Fisheries Development Authority of Malaysia provided an update on cage aquaculture in the region and provided platform for networking between researchers, practitioners, law enforcement agencies and other stakeholders.
- **The Eighth Symposium on Diseases in Asian Aquaculture (DAA8)** (21st-25th November, 2011; Magalore, India) organised with the theme Fish Health for Food Security, which covered all aspects of fish diseases, including diagnostics, vaccines, genomics, disease preparedness and development of national plans.
- **Global Symposium on Aquatic Resources for Eradicating Hunger and Malnutrition; Opportunities and Challenges** (4th-6th December, 2012 at Mangalore, India).
- **The 4th Global Symposium on Gender in Aquaculture and Fisheries (GAF4)** (30th April – 4th May, 2013; Yeosu, Korea) organised during 10th Asian Fisheries and Aquaculture Forum stressed on the aspects to stimulate gender equality.
- **The 4th International Symposium on Cage Aquaculture in Asia (CAA4)** (30th April-4th May, 2013; Yeosu, Korea) largely discussed the aspects of marine and freshwater cage culture, seed production, health management and pollution.
- **10th Indian Fisheries and Aquaculture Forum (10ifaf)** (12th-15th November, 2014; Lucknow, India) organized under the aegis of AFSIB with the theme “Towards Responsible Aquaculture and Sustainable Fisheries.
- **The '5th Global Symposium on Gender in Aquaculture and Fisheries (GAF5)'** (13th-15th November, 2014; Lucknow, India) organized by ICAR-National Bureau of Fish Genetic Resources, India in collaboration with the Asian Fisheries Society Indian Branch (AFSIB) focused on GAF Networking, besides deliberating on all relevant issues of gender in fisheries.

- **International Workshop on Aquatic Animal Disease Surveillance (IWAADS)** (14th November, 2014; NBFGR, Lucknow, India) organised in collaboration with the AFSIB highlighted the importance of disease surveillance in the context of increased intensification and transboundary movement of aquatic animals.
- **The Ninth Symposium on Diseases in Asian Aquaculture (DAA9)** (24th-28th November, 2014; Ho Chi Minh City, Vietnam) was organized by the the Department of Animal Health, Ministry of Agriculture and Rural Development, Vietnam which included the aspects of biosecurity, immunology, diagnostics, disease management, and emerging fish and shrimp diseases.
- **The 5th International Symposium on Cage Aquaculture in Asia (CAA5)** (25th-28th November, 2015, Kochi, India) organised by the Central Marine Fisheries Research Institute (CMFRI), India and the Asian Fisheries Society Indian Branch (AFSIB) largely covered the aspects pertaining to recent advances and research activities in cage aquaculture and provided roadmap for the development of the sector.
- **The 6th Global Symposium on Gender in Aquaculture and Fisheries (GAF6)** (3rd-6th August, 2016, Bangkok; Thailand) organised on the theme 'Engendering Security in Fisheries and Aquaculture' covered diverse programmes including 'Implementation of the Gender Elements of the Small Scale Fisheries Guidelines' and 'Gender in Fish Trade and Value Chains' and Gender and Food Safety.
- **11th Indian Fisheries and Aquaculture Forum (11ifaf)** (21st-24th November, 2017; Kochi, India) organized under the aegis of AFSIB with the theme Fostering Innovations in Fisheries and aquaculture-Focus on Sustainability and Safety.
- **The Tenth Symposium on Diseases in Asian Aquaculture (DAA10)** (28th August-1st September, 2017; Bali, Indonesia) was organised with the theme Enhancing Aquatic Animal Health Research and Services through Public-Private Sector Partnerships, that covered a wide range of topics from classic parasitic, bacterial and viral diseases to emerging trends and cutting edge research in aquatic animal health.
- **GAF-India, 11th Indian Fisheries and Aquaculture Forum** (21st-24th November, 2017; Kochi, India) organised by the Gender in Aquaculture and Fisheries Section of the AFS as a side event of 11th Indian Fisheries and Aquaculture Forum Included the discussions in the areas of Gendered impacts on market changes in the fisheries sector; Innovations in

fisheries and aquaculture; Climate change, disaster preparedness and resilience; and Challenges in the implementation of the voluntary guidelines on small-scale fisheries.

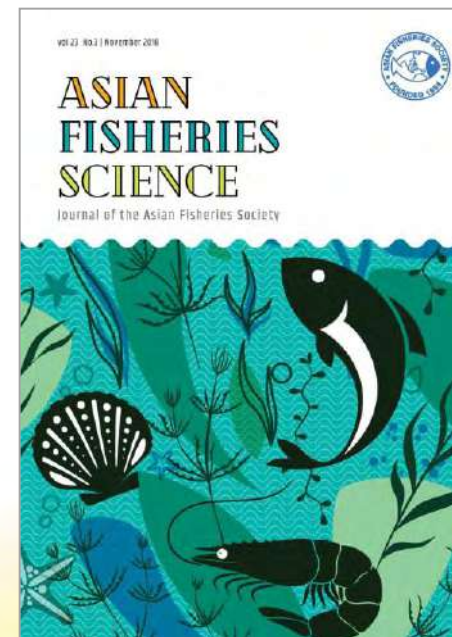
- **3rd International Symposium on Aquaculture and Fisheries Education (ISAFE3)** (16th-18th May, 2018; Mumbai, India) organized by the ICAR-Central Institute of Fisheries Education, Mumbai, India in collaboration with the Indian Fisheries Association (IFA) and Asian Fisheries Society Indian Branch (AFSIB).
- **The 6th International Symposium on Cage Aquaculture in Asia (CAA6)** (12th-15th October, 2018; Surat Thani, Thailand) organized by Department of Marine Science, Faculty of Science, Chulalongkorn University, National Science and Technology Development Agency (NSTDA) and Prince of Songkla University, Surat Thani Campus (PSU-Surat) discussed key issues associated with the cage aquaculture development and suggested necessary strategies for the region.
- **The 7th Global Conference on Gender in Aquaculture and Fisheries (GAF7)** (18th-21st October, 2018; Bangkok, Thailand), the first standalone event of the Gender in Aquaculture and Fisheries Section (GAFS) of the Asian Fisheries Society (AFS), discussions included the aspects of gender assessments, gender-disaggregated statistics, seafood industry, fisheries & aquaculture governance, SDGs, gender research methods in fisheries & aquaculture etc.

10. Disseminating Information

Publications of the Journal - Asian Fisheries Science

When the Society was established in 1984, more than 900 members expressed their desire for a reputable journal that they could afford to subscribe to and in which they could report their scientific findings. To address this need, the Society began publishing the Asian Fisheries Science in December 1987. The Journal strives to provide a professional medium to disseminate the scientific work of fisheries scientists, including those unable to subscribe to expensive journals or pay exorbitant charges to publish their scientific papers. It is open to researchers around the world investigating problems or issues in fisheries and aquaculture related to the Asia-Pacific region. All the papers submitted to the Journal are peer-reviewed by at least two world-renowned scientists. The Journal stirred much interest among the fisheries scientific community. To accommodate the growing number of manuscripts submitted, the number of issues per year was increased from two to three in 1991, and to four in 1994.

The Society in the past has received support to publish the Journal from: the International Development Research Centre (IDRC), Canada; the Fwu Sow Group; the Hanaqua International Corporation; SEAFDEC Aquaculture Department; and the WorldFish Center. More recent donors include: Charoen Pokphand Group-C.P. Aquaculture Co., Ltd., Thailand; and SAREC Regional Program on Marine Science in Southeast Asia through the Coastal Management Center (CMC). Dr. Shiau Shi-Yen from Taiwan took-over from Dr. Sena De Silva as the Editor-in-chief in 2004. With the move to an e-Journal, the Society employed two assistant editors to provide specialist support to its publication. With the move of the



Society's Secretariat to UPM, Malaysia, a new Editor-in-Chief, Prof. Mohamed Shariff was appointed in December 2010. Prof. Shariff is currently at the Faculty of Veterinary Medicine, Universiti Putra Malaysia. He was the President of Asian Fisheries Society during the 5th Council (1995-1998) term.



The Asian Fisheries Science (AFS) is now an open access peer reviewed publication. Regular online issues are published quarterly in March, June, September and December. In addition, special issues are published on specific topics. The journal promotes fisheries science which has an international appeal with special focus on Asian interests. As part of the Society's commitment to share the outputs of scholarly research to benefit all communities and ensure widespread access to research findings, full texts of the articles are available for free download and there is no publication fee.

Asian Fisheries Science is currently indexed by the following databases: SCOPUS, Google Scholar, EBSCO Publishing, CAB Abstracts, Biological Abstracts and BIOSIS.

Since 2017, all manuscripts are submitted online using the ScholarOne Manuscripts™. The use of ScholarOne Manuscripts™ has streamlined the submission process and has improved the journal's standing internationally. This is seen from an increase in the number of article submission from all over the world especially the Asian continent. Contributing authors are from some of the major countries like India, Philippines, Nigeria, Bangladesh, Malaysia, Iran (the Islamic Republic of), Sri Lanka, Indonesia, Japan, Thailand and Viet Nam. Scientists from Egypt, Iraq, Turkey, United States, Brazil, Ethiopia, Fiji, Germany, Lao People's Democratic Republic, Myanmar, Nepal, and Saudi Arabia have also shown interest by submitting manuscripts to this journal. The editorial team have so far been successful in publishing online articles on schedule. The contributions of the past assistant editors Dr. Choo Poh Sze and Mr. Tarlochan Singh were indispensable for the success of the journal. Currently, Dr Sanjoy is the newly appointed assistant editor since April 2018.

During the last 3 years, in addition to the 4 regular annual issues, 3 special issues were published. They are (1) Gender in Aquaculture and Fisheries: The Long Journey to Equality (2016), (2) Gender in Aquaculture and Fisheries: Engendering Security in Fisheries and Aquaculture (2017), and (3) Acute Hepatopancreatic Necrosis Disease (AHPND) (2018). The latest special issue on

AHPND published in collaboration with the Food and Agriculture Organization of the United Nations, Rome, has been very popular and has been downloaded 750 times within the first month.

Since March 2019, the Journal has a colourful facelift with a new attractive cover page and homepage having a more user-friendly layout. In addition, journal accessibility and slow downloads of articles are a thing of the past. In addition all papers published will be given the digital object identifier (DOI) which is a step forward in making the Journal more accessible in addition to promoting the Journal in social media.



The screenshot shows the homepage of the Asian Fisheries Society. At the top left is the society's logo, a circular emblem with a fish and the text 'ASIAN FISHERIES SOCIETY' and 'FOUNDED 1984'. To its right is the text 'Asian Fisheries Society'. Further right are search bars for 'Keywords' and 'Title'. Below these are navigation links: 'Home | Journal | Editorial Board | E-Alert | Contact Us'. A large blue banner with a colorful illustration of marine life (fish, coral, shells) features the text 'Asian Fisheries Science'. Below the banner, on the left, is a thumbnail of the journal cover. To its right is a text block describing the journal: 'The Asian Fisheries Science (AFS) was first published in 1987. It is an open access SCOPUS indexed publication of the Asian Fisheries Society. Four regular issues are published annually in March, June, September and December. In addition, special issues are published on specific topics. Full texts of the articles are available for free download and there is no publication fee. The journal promotes fisheries science which has an international appeal with special focus on Asian interests.' Below this text is a button that says 'Open Access No Publication Fee'. At the bottom of this section, it lists 'Publisher: Asian Fisheries Society', 'ISSN 0116-6514', and 'E-ISSN 2073-3720'. On the right side of the page is a vertical list of links: 'Online First', 'Current Issue', 'Previous Issues', 'Special Issues', 'Editorial Board', 'Submit a Manuscript', 'Guide for Authors', 'Code of Ethics', and 'Subscribe to E-alerts'.

E-Newsletter

To improve communication between the Society and its members, 8th Council initiated the AFS e-Newsletter in 2006. During the formative years, the Society was responsible for writing the half-yearly Newsletter. The current e-Newsletter Editor, Dr Modadugu V. Gupta, is encouraging all members to use this media as a way of informing others of new research findings, recent and forthcoming events and other news of interest to Asian Fisheries Society Science. With a bit more input from members, this newsletter could be a powerful tool for disseminating information as well as forming links among fisheries scientist in the region. The e-Newsletter is available for downloading from the AFS website at <http://www.asianfisheriessociety.org/e-newsletter.php>.



Social Network

The Society has also set up a Facebook that it uses to communicate with AFS Members and Non-Members who register under Facebook Social Network. Currently, it is used mainly to inform and update the events and news of the Society. The Society also has connected with other Society such as World Fish Center, FAO, AquaFish-CRSP and PEMSEA.

Publications

Fish Quarantine and Fish Diseases in South and Southeast Asia: 1986 Update.

J.R. Arthur (Editor). 1987

Report of the Asian Fish Health Network meeting held in the Philippines in 1986.

Fisheries Education and Training in Asia

Workshop Proceedings. 1988

Reviews fisheries education and training systems in Asia and provides recommendations for fisheries manpower development.

Exotic Aquatic Organisms in Asia

S.S. De Silva (Editor). 1989

Documents a 1988 workshop in Australia, an initial effort of fisheries scientists towards regulating the introduction of exotic species into Asia, as these may introduce diseases, disrupt aquatic communities and lead to the genetic deterioration of host stocks.

Fish Nutrition Research in Asia. Proceedings of the Third Asian Fish Nutrition Network Meeting

S.S. De Silva (Editor). 1989

Proceedings of the meeting that formalized the Asian Fish Nutrition Network. This volume attempts to obtain a fairly representative cross-section of on-going research on fish nutrition in Asia, depicting the immediate nutrition needs for intensification of the practices in the region.

Asian Fisheries Directory

F. Brian Davy (Editor). 1989

A trade directory that helps scientists and technicians locate suppliers of products and information, research equipment, materials, consultants, services and trade items. Also lists fisheries societies, networks, institutions and agencies, both governmental and nongovernmental.

Fish Nutrition Research in Asia. Proceedings of the Fourth Asian Fish Nutrition Workshop

S.S. De Silva (Editor). 1991

Proceedings of a workshop held by the Asian Fish Nutrition Network to coordinate a regional fish nutrition research program in Asia. Includes reviews, original research findings, discussions and recommendations which could help direct fish nutrition research in Asia.

Asian Fisheries Science: A Profile

J.L. Maclean (Editor). 1991

Provides information about the state of aquatic sciences research and literature in Asia. It analyzes the results of a study conducted in 1987-89 to investigate the nature of the Asian fisheries science community and its literature output.

Diseases in Asian Aquaculture I: Proceedings of the First Symposium on Diseases in Asian Aquaculture

M. Shariff, R.P. Subasinghe and J.R. Arthur (Editors). 1992

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the First Symposium on Diseases in Asian Aquaculture held in Bali, Indonesia in 1990, which contains 55 papers presenting original research or reviews of areas of fish health important to the Asia-Pacific Region.

Resource Allocation to Fisheries Research in Asia

F.B. Davy (Editor). 1993

These proceedings of two workshops held in 1990 in Singapore and China assessed the status of the allocation of national budget and manpower for fisheries research and development in nine Asian countries.

Fisheries Education and Training in Asia: Second Workshop Proceedings

H. C. Liu and S. Y. Yeh (Editors). 1993

The result of a workshop which aimed to develop appropriate curricula to upgrade fisheries education in Asia, these proceedings present curriculum packages for capture fisheries, aquaculture, postharvest technology and general fisheries. Includes an overview of fisheries education in national tertiary establishments in Asia.

Fish Nutrition Research in Asia. Proceedings of the Fifth Asian Fish Nutrition Workshop

S.S. De Silva (Editor). 1994

These proceedings reflect current research in nutrition in relation to finfish culture. Emphasis has turned to on-farm research in relation to semi-intensive culture systems.

Diseases in Asian Aquaculture II: Proceedings of the Second Symposium on Diseases in Asian Aquaculture

M. Shariff, J.R. Arthur and R.P. Subasinghe (editors). 1995

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the Second Symposium on Diseases in Asian Aquaculture held in Phuket, Thailand in 1993, which contain 51 peer-reviewed articles.

Proceedings of the International Symposium on Biotechnology Applications in Aquaculture

C. M. Kuo (Editor). 1995

These proceedings present original research reports on the following fields of biotechnology applications in aquaculture: reproduction, stock improvement by gene manipulation, disease diagnosis and vaccination, and resource utilization.

Perspectives in Asian Fisheries

S.S. De Silva (Editor). 1996

This book, which commemorates the Society's tenth anniversary, presents the status, advances and future prospects in fisheries and aquaculture research.

Aquaculture in Asia: The Proceedings of the Second International Seminar on Fisheries Science in a Tropical Area

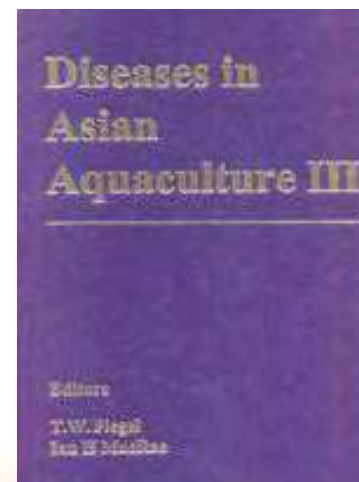
F. Takashima, T. Takeuchi, T. Arimoto and C. Itosu (Editors). 1997

Contains various papers presented in three sessions: Aquaculture in Indonesia and Other Asian Countries, Sea Farming in Japan and Aquaculture in Another Asian Countries.

Diseases in Asian Aquaculture III: Proceedings of the Third Symposium on Diseases in Asian Aquaculture

T.W. Flegel and J.I.H. MacRae (Editors). 1997

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the Third Symposium on Diseases in Asian Aquaculture held in Bangkok, Thailand in 1996, which contains 49 peer reviewed original research and review papers.

**Cage Aquaculture in Asia: Proceedings of the First International Symposium on Cage Aquaculture in Asia**

I Chiu Liao and C. Kwei Lin (Editors). 2000

Provides status of the cage culture industry in Asia and other parts of the world. Proceedings of a symposium held in 1999 in Taiwan. Jointly published with the WAS-Southeast Asian Chapter.

International Symposium on Women in Asian Fisheries Proceedings

M.J. Williams, M.C. Nandeesha, V.P Corral, E. Tech and P.S. Choo (Editors). 2001

Contains the papers presented in the International Symposium on Women in Asian Fisheries (the 6th Asian Fisheries Forum), held in Chiang Mai, Thailand, 1998.

Post-Retirement Careers in Fisheries and Aquaculture

M.B. New and I. Chiu Liao (Editors). 2002

This book contains papers presented during a special session at the 6th Asian Fisheries Forum.

Diseases in Asian Aquaculture IV: Proceedings of the Fourth Symposium on Diseases in Asian Aquaculture

C.R. Lavilla-Pitogo and E.R. Cruz-Lacierda (Editors). 2002

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the Fourth Symposium on Diseases in Asian Aquaculture held in Cebu City, Philippines in 1999, which contains 43 peer reviewed original research and review papers.

Global Symposium on Women in Fisheries

M.J. Williams, N.H. Chao, P.S. Choo, K. Matics, M.C. Nandeesha, M. Shariff, I. Siason, E. Tech and J.M.C. Wong. 2002

The First Ever Global Symposium on Women in Fisheries (the 6th Asian Fisheries Forum), held in Kaohsiung, Taiwan on 29 November 2001 generated the collection of papers on women in fisheries.

Aquaculture: Retrospective and Outlook, An Aquaculture Summit

C.S. Lee (Editor). 2004.

This book contains the proceedings of a workshop held in Honolulu, Hawaii in November 4-7, 2002.

Diseases in Asian Aquaculture V: Proceedings of the Fifth Symposium on Diseases in Asian Aquaculture

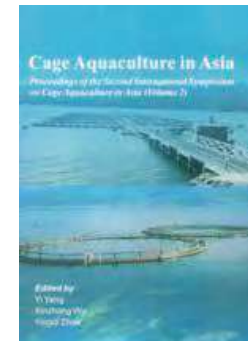
Peter J. Walker, Robert G. Lester and Melba G. Bondad-Reantaso (Editors). 2005

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the Fifth Symposium on Diseases in Asian Aquaculture held in Queensland, Australia in 2002 published the proceedings which contains 53 original research and review papers.

Cage Aquaculture in Asia: Proc. of the Second International Symposium on Cage Aquaculture in Asia (Vol. 1 & Vol. 2)

Yi Yang, Xinzhong Wu and Yingqi Zhou (Editors). 2009

Proceedings of the symposium held in Zhejiang, China, 3-8 July 2006.



Cobia Aquaculture: Research, Development and Commercial Production

I. Chiu Liao and Eduardo M. Leaño (Editors). 2007

This book contains the latest information relating to Cobia aquaculture and is a “must read” for scientists, policy makers and practicing aquaculturists.

Diseases in Asian Aquaculture VI: Proceeding of the Sixth Symposium on Diseases in Asian Aquaculture

Melba G. Bondad-Reantaso, C.V. Mohan, Margaret Crumlish and Rohana P. Subasinghe (Editors). 2008

The Fish Health Section, Asian Fisheries Society, Manila, Philippines published the proceedings of the Sixth Symposium on Diseases in Asian Aquaculture was held in Colombo, Sri Lanka in 2005, which contains 36 original research and review papers.

The Aquaculture of Groupers

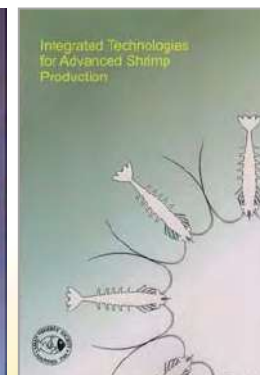
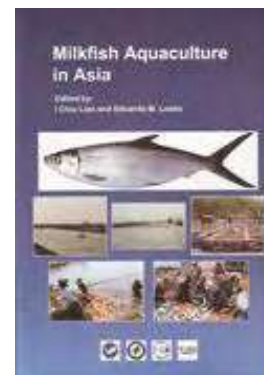
I. Chiu Liao and Eduardo M. Leaño (Editors). August 2008

An up-to-date treatise on culturing groupers.

Milkfish Aquaculture in Asia

I Chiu Liao and Eduardo M. Leaño (Editors). March 2010

A recent addition to the series edited by I Chiu Liao and Eduardo M. Leaño on milkfish aquaculture in Asia.



Integrated Technologies for Advanced Shrimp Production

Special Issue Publication Vol 23(4). December 2010

Proceedings of the Symposium on Integrated Technologies for Advanced Shrimp Production which was held in October 13-15, 2009 in the East-West Centre, University of Hawaii.

Diseases in Asian Aquaculture VII: Proceeding of the Seventh Symposium on Diseases in Asian Aquaculture

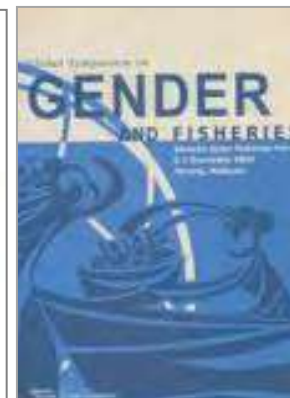
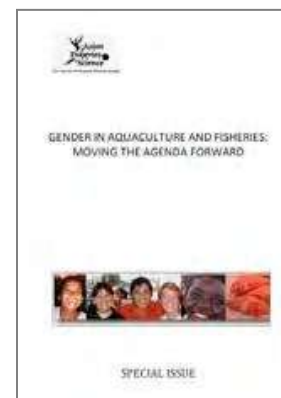
M. Bondad-Reantaso, J. Brian Jones, F. Corsin and T. Aoki. November 2011

Fish Health Section of Asia Fisheries Society has published Proceedings of the Seventh Symposium on Diseases in Asian Aquaculture which was held on June 22-26, 2008 in Taipei, Taiwan.

Gender in Aquaculture and Fisheries: Moving the Agenda Forward

M.J. Williams, M. Porter, P.S. Choo, K. Kusakabe, V. Vuki, N. Gopal and M.B. Reantaso (Editors). 2012

Papers from 3rd Global Symposium on Gender in Aquaculture and Fisheries which was held on 21-23 April, 2011 in 9th Asian Fisheries and Aquaculture Forum at Shanghai Ocean University, China.

**Gender in Aquaculture and Fisheries: Navigating Change**

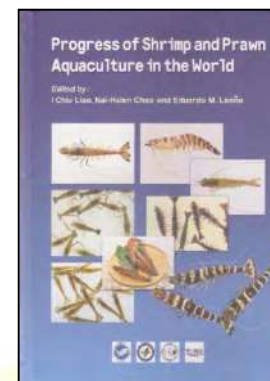
Nikita Gopal, Meryl J. Williams, Marilyn Porter, Kyoko Kusakabe and Poh Sze Choo (Editors). 2014.

The papers presented in the 4th Global Symposium on Gender in Aquaculture and Fisheries was published online and also hard copy in November, 2014, released during the Inaugural Function of the 10th Indian Fisheries and Aquaculture Forum held at Lucknow, India.

Progress of Shrimp and Prawn Aquaculture in the World

I. Chiu Liao, Nai-Hsien Chao and Eduardo M. Leaño (Editors)

Published jointly by National Taiwan Ocean University, Fisheries Society of Taiwan, Asian Fisheries Society and World Aquaculture Society.

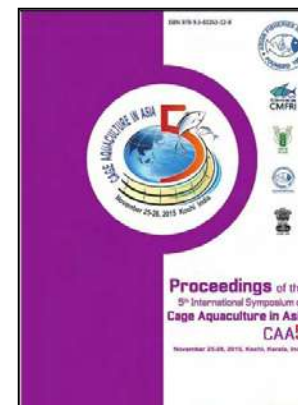
**Gender in Aquaculture and Fisheries: The long-journey to equality. Asian Fisheries Science**

Gopal, N., M.J. Williams, M. Porter, K. Kusakabe (Editors). 2016.

<http://www.asianfisheriessociety.org/publication/archivedetails.php?id=139>

Cage Aquaculture in Asia 5- Proceedings of the 5th International Symposium on Cage Aquaculture in Asia

Gopalakrishnan, A., Imelda Joseph, Ignatius Bobby, Kuriakose Somy, George Grinson, Nair Rekha J, Kathirvelpandian, A., and Mohan Joseph, M. (2016). Proceedings of the Symposium held in Kochi, Kerala, India, 25th - 28th November 2015. ISBN 978-93-82263-12-8.



Women in Indian Fisheries- Proceedings of the Workshop on Women in Indian Fisheries

Gadagkar, SR (Editor). 1992. 27 May 1990.

Special Publication 8, Asian Fisheries Society, Indian Branch, Mangalore, India.

<https://genderaquafish.files.wordpress.com/2012/07/1992-procs-india-women-in-fisheries-1990-workshop.pdf>

Gender in Aquaculture and Fisheries: Engendering Security in Fisheries and Aquaculture

Gopal, N., M.J. Williams, S. Gerrard, S. Siar, K. Kusakabe, L. Lebel, H. Hapke, M. Porter, A. Coles, N. Stacey and R. Bhujel (Editors). 2017. Asian Fisheries Science (Special Issue)

<http://www.asianfisheriessociety.org/publication/archivedetails.php?id=146>

Forum Proceedings

The First Asian Fisheries Forum

J.L. Maclean, L.B. Dizon and L.V. Hosillos (Editors). 1986

The Proceedings of the 1st Asian Fisheries Forum held in 1986 in Manila, Philippines, contain 167 scientific papers and major reviews on Asian fisheries and aquaculture, developments in fish nutrition and advances in tropical fisheries research. Includes indices for author and species.

The Second Asian Fisheries Forum

R. Hirano and I. Hanyu (Editors). 1990

The Proceedings of the 2nd Asian Fisheries Forum held in 1989 in Tokyo, Japan, contain 228 full and poster papers and major reviews on Asian fisheries and aquaculture, developments in fish nutrition and advances in tropical fisheries research. Includes indices for author and species.

The Third Asian Fisheries Forum

L.M. Chou, A.D. Munro, T.J. Lam, T.W. Chen, L.K.K. Cheong, J.K. Ding, K.K. Hooi, H.W. Khoo, V.P.E. Phang, K.F. Shim and C.H. Tan (Editors). 1994

The Proceedings of the 3rd Asian Fisheries Forum contains 274 scientific papers and 8 abstracts on fisheries research in Asia. Topics range from fish and shrimp culture, capture fisheries, diseases, ecology, biology, genetics, molecular biology, nutrition, physiology, postharvest technology, socioeconomics and ornamental fish. Includes indices for author and species.

The Fourth Asian Fisheries Forum

Y. Zhou, H. Zhou, C. Yao, Y. Lu, F. Hu, H. Cui and F. Din (Editors). 1997

The Proceedings of the 4th Asian Fisheries Forum contains 184 scientific papers and abstracts. Topics range from Aquaculture, Capture Fisheries, Diseases, Ecology, Fish Biology, Genetics, Biotechnology, Nutrition, Post-harvest Technology, Socioeconomics, Fishery Resources and Management and Conservation of Aquatic Biodiversity. Includes author index.

The Fifth to Seventh Asian Fisheries Forum

After 1997, no hard copies of the proceedings were produced due to the rising costs of printing and mailing the proceedings to members.

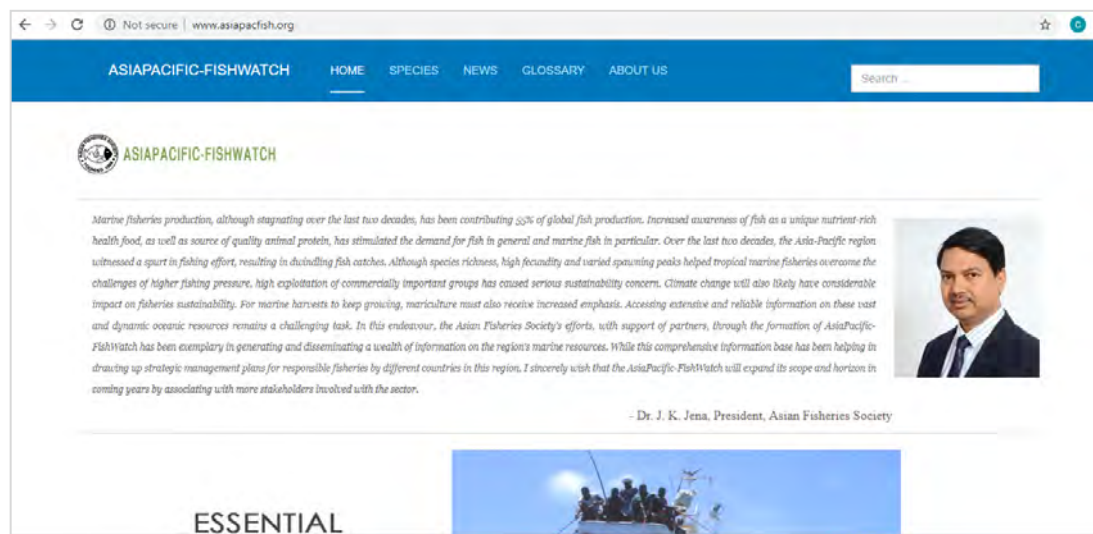
The Eighth Asian Fisheries Forum

Selected refereed papers presented at the 8AFF were published in e-format in the Asian Fisheries Science Journal, Vol 22 (1 & 2) in 2009. In addition to the above publications, the AFS Fish Health Section runs a triennial symposium on Fish Diseases in Aquaculture.

AsiaPacific-FishWatch

Recognising that fish and other aquatic foods produced from the oceans, rivers, lakes and ponds of Asia and the Pacific were not well known, the Asian Fisheries Society launched a project to create authoritative and readable profiles for the interested public. Starting from a small planning meeting, the online knowledge base, AsiaPacific-FishWatch (<http://www.asiapacfish.org/>) was designed and is being developed as a source of essential information on fish harvested or farmed for food in Asia-Pacific. It is being managed by the Asian Fisheries Society and partners and is designed to grow to cover the main commodities produced in Asia and the Western and Central Pacific and Indian Ocean areas. The content of AsiaPacific-FishWatch is being written and peer reviewed by a wide range of experts based in regional and national aquaculture and fisheries agencies and independent bodies. At present, it contains full profiles for the six key species of tuna, namely the five oceanic tunas: skipjack, yellowfin, bigeye, albacore and Pacific Bluefin tunas; and the neritic tuna longtail tuna. The status of the fisheries for these species, in terms of the sustainability of stocks and their environmental impacts, are updated annually. The preparation of the tuna species profiles has been supported by the International Seafood Sustainability Foundation (ISSF) and the organisations of contributing experts.

The first aquaculture species, the pangasius catfish, is now also uploaded. AFS welcomes collaborations on this project. Contact: Meryl J Williams, AsiaPacific-FishWatch Interim Director. E-mail: AsiaPacFish@gmail.com



11. Promoting Global Cooperation

The Asian Fisheries Society plays a variety of roles in cooperating with regional and international societies and institutions. The WorldFish (formerly ICLARM) has been associated with and has been a strong supporter of AFS from its founding to the present day. For its services and support to the Society, the WorldFish was awarded with the AFS Gold Award in 2007. Similarly, the Mekong River Commission (MRC) was given a Merit Award in 2007 and a Gold Medal in 2011 during the 9AFAF for its support to the Society and to the Asian Fisheries Forum over a number of years.

FAO has also been associated with AFS over a long period and has provided both staff and financial support for many AFS activities, the latest of which were the 2nd International Symposium on Cage Culture held in China in 2006, the 8AFF held in Kochi, India in 2007 and the Special Global Symposium on Gender in Aquaculture & Fisheries (GAF3) held in Shanghai, China in April 2011 as part of 9AFAF. For its support to AFS, FAO was given a Gold Medal during 9AFAF.

The Society also undertakes collaborative activities with the World Fisheries Society in holding the World Fisheries Congress, a 5-day global conference for the free exchange of scientific information. Fisheries scientists worldwide who are concerned about the long-term health and wise use of fisheries resources meet to assess the state of the world's fisheries resources and promote scientific collaboration. The first Congress was held in May 1992 in Athens, Greece and spearheaded by the American Fisheries Society and the AFS. The Society co-sponsored the 3rd World Fisheries Congress held in Beijing, China (31st October- 3rd November, 2000) organized by the China Society of Fisheries and actively involved in the 6th Congress held in Edinburgh, Scotland in May 2012.



Dr. Matthias Halwart receiving the Gold Medal Award on behalf of FAO, UN from AFS President Ida Siasson in April 2011

The society is also seeking membership of the World Council of Fisheries Societies. Formal agreements with the World Aquaculture Society (2008) and the Korean Society of Fisheries and Aquatic Science (2010) allow the cooperative exchange of publications, enhance the benefits available to members of each society, and broaden the international exchange of information among aquaculture scientists.

AFS also interacts with many national fisheries societies throughout Asia. The Malaysian Fisheries Society and Chinese Society of Fisheries are strong affiliates of AFS.



1. Prof. Pan Ying-Jie (centre), President of Shanghi Ocean University (SHOU) receiving the Gold Medal Award on behalf of the university in April 2011. Mrs Yangyi receiving the Gold Medal Award on behalf of her husband, the late Prof YangYi
2. Former AFS Vice-President, Mr. Darryl Grey, representing the Society at the 2nd World Fisheries Congress
3. The 3rd World Fisheries Congress (October 2000, Beijing China). Dr. Chua Thia-Eng represented the Society in this meeting.
4. Dr. Mohammed Shariff, Chairman of the Malaysian Fisheries Society and Dr. Chua, affirm the partnership between the two societies

12. AFS MyConferences Website

The Asian Fisheries Science's (AFS) MyConferences website was created in June 2014 with an objective to provide better management and integration of all the conference activities of the Asian Fisheries Society. It is intended to make Asia Pacific

countries easier to host future fora and conferences run by the Society and ensure consistent high standard and quality in all AFS conferences. The domain name of website is <http://afsconferences.net>. It covers the conferences such as Asian Fisheries and Aquaculture Forum (AFAF), Cage Aquaculture in Asia, Diseases in Asian Aquaculture, Gender in Aquaculture and Fisheries, International Symposium on Aquaculture and Fisheries Education (ISAFE) and Indian Fisheries and Aquaculture Forum (IFAF).

The Home page of MyConferences website provides an introduction to all conferences run by the Society and link to main page created for each conferences like AFAF, CAA, DAA, GAF, ISAFE and IFAF. Each Conference section has its own home page with an overview and sub-

Home AFAF CAA DAA GAF ISAFE IFAF Convenor's Zone Asian Fisheries Society

UPCOMING AFAF

12th ASIAN FISHERIES & AQUACULTURE FORUM

8 -12 April 2019

Iloilo City, Philippines.

12th Asian Fisheries and Aquaculture Forum will be held at the Iloilo Convention Center, Iloilo City, Philippines on 8 -12 April 2019....

UPCOMING GAF

7th Global Conference on Gender in Aquaculture and Fisheries (GAF7)

The 7th Global Conference on Gender in Aquaculture and Fisheries (GAF7) will be held at Asian Institute of Technology, Bangkok, Thailand, during 18-21 October 2018....

MyConferences

The Asian Fisheries Society (AFS) was established in 1984 to promote greater interaction, net-working and cooperation among researchers, technicians and all stakeholders involved in fisheries and aquaculture research and development (R&D) in the Asia-Pacific (AP) region. It aims to encourage and facilitate research activity complementation, sharing of information and publication of research results, and more recently expanding its activities to include private sector partners and government institutions. Its ultimate aim is to raise the awareness of the importance and ways of utilization, conservation, sustainable production and development of aquatic resources in the AP region for the benefit of all. The Society operates apolitically and all its operations and activities are self-funded via membership dues and income generated by running conferences. For more information about the AFS, its history and past activities please visit www.asianfisheriessociety.org

Download AFS Year Book 2016

The triennial Asian Fisheries Forum (AFF) was initiated by the Society to achieve many of the above stated objectives. The 1st AFF was successfully held in Manila, Philippines in 1986 and was the first big milestone of the Society. Since the first forum, the triennial fora have been carried out in many AP member countries through an expression of interest process with the successful host country appointed Convenor of the forum.

The triennial forum serves as the venue for...

AFAF

The AFAF of the Society is one of the most important activities of AFS. Since 1986, the Society has successfully run 10 triennial fora. In 2007, during the 8th AFS council term, the Society decided to update the name to the present AFAF to...

CAA

The CAA a specialized symposium of the Society focused on the status and growth of cage aquaculture in AP region. The success of CAA1 in 1999 resulted in the AFS 8th Council's decision to make the CAA into a regular symposium series of the Society hosting...

DAA

DAA is a symposium held by the Fish Health Section of AFS and is the second conference series started by the Society. Since the first successful symposium held in Indonesia in 1990, there has been seven other symposia...

ISAFE

The ISAFE focuses on the status and development of aquaculture and fisheries education in the AP region. The first ISAFE was held in Bangkok, Thailand in 2009 and ISAFE2 was held in April 2015 in Shanghai, China...

GAF

To promote greater gender equality in the aquaculture and fisheries sector, a special interest group of the Asian Fisheries Society convenes periodic Gender in Aquaculture and Fisheries (GAF) research and development...

sections like reports, abstracts, publications, photos & videos providing details of conferences conducted so far. The Convener's Zone in menu bar which started in 2016 provides templates and models like sample abstracts, poster submission guidelines etc. that serves as a helping tool for future conferences. *MyConferences* website is visited by an average of over 3000 visitors per year. As on 20th March, 2019, the website is visited by a total of 15,473 visitors

Updates during August 2016 to March 2019

The website is uploaded with notification of upcoming conferences 10DAA, 6GAF, 7GAF, CAA6 and ISAFE3. In addition, the site has been uploaded with reports, photos and abstract book of 11AFAF, ISAFE3 and CAA6. AFS Year Book 2016 was also uploaded in website.



Modification of MyConferences Website.

Till 2018, there was no provision for uploading reports/abstracts and photos of GAF conferences. A separate section was created for GAF in *MyConferences* website in 2018 and uploaded photos and reports of GAF4, GAF5, GAF6 and GAF7. Similarly, a separate section for IFAF was also created and uploaded reports and photos of 11IFAF. In addition, Kanazawa Research Fellowship Award details were also uploaded.

Other Updates

The website is maintained regularly with proper backup of database and resources. A “Conveners’ Zone” was created in home page in 2017 as a helping tool for the organizers of future conferences. In order to monitor the usage and other demographic statistics of website, a Google Analytics account was created and maintained.



13. The AFS Council

The Society is governed by a Council consisting of up to 15 Councilors who are elected for a three-year term. The daily affairs of the Council are run by an Executive Committee consisting of the President, Vice-President, Immediate Past President, Treasurer, Secretary and the In-coming President. Council holds regular Annual Meetings to discuss and approve major decisions on behalf of the Society. Since the 1st Asian Fisheries Forum in 1986 in Manila, the Council has held 51 Council Meetings. These meetings are usually held in member countries on a rotational basis. More information on the functions of the AFS Council and its management roles can be obtained from the AFS website: www.asianfisheriessociety.org and the AFS constitution.



First AFS Council, 1984-1986



35th Council meeting held in Taipei by the late President Prof. Yang Yi



38th Council meeting at KORDI, South Korea



39th Council meeting held at Shanghai Ocean University in April 2011



43rd Council meeting held at Yeosu, Korea on 29th April, 2013



45th Council meeting held at UPM, Kuala Lumpur,
Malaysia on 21st April, 2014



46th Council meeting held at SHOU, Shanghai, China
on 21st April, 2015



47th Council meeting held at Bangkok on 8th April,
2016



48th Council Meeting held at Bangkok, Thailand on 3rd August, 2016



49th Council Meeting held at Bangkok, Thailand on 6th August, 2016



50th Council Meeting held at National Cheng Kung University, Tainan, Taiwan on 28th April, 2017



51st Council Meeting held at Kuala Lumpur, Malaysia on 19th April, 2018

Council Members

First Council (1984-1986)	Second Council (1986-1989)	Third Council (1989-1992)	Fourth Council (1992-1995)
Dr. Chua Thia-Eng - President	Dr. Chua Thia-Eng - President	Dr. Chua Thia-Eng - President	Dr. Liu Hsi-Chiang - President
Dr. William Dall	Dr. Kenji Chiba	Dr. Kenji Chiba	Dr. Fuad Cholik
Dr. Brian Davy	Dr. Brian Davy	Dr. Fuad Cholik	Dr. Chua Thia-Eng
Dr. H. Muhammad Eidman	Dr. Muhammad Eidman	Dr. John Copland	Dr. Efren Flores
Dr. Edgardo Gomez	Mr. Darryl Grey	Dr. Brian Davy	Dr. Edgardo Gomez
Dr. Reijiro Hirano	Dr. Reijiro Hirano	Mr. Darryl Grey	Mr. Jia Jian San
Dr. Rogelio Juliano	Dr. Rogelio Juliano	Dr. Akio Kanazawa	Dr. Khoo Hong Woo
Dr. T.J. Lam	Dr. Akio Kanazawa	Mr. Pinij Kungvankij	Mr. Pinij Kungvankij
Dr. I Chiu Liao	Dr. T.J. Lam	Dr. Khoo Wong Hoo	Dr. Ching-Ming Kuo
Mr. Jay L. Maclean	Dr. I Chiu Liao	Dr. Flor Lacanilao	Prof. Lin Hao-Ren
Prof. Brian Morton	Dr. Liu Hsi-Chiang	Dr. T.J. Lam	Dr. Andrew McNaughton
Dr. Richard A. Neal	Mr. Jay L. Maclean	Dr. I Chiu Liao	Dr. Piamsak Menasveta
Dr. T. Piyakarnchana	Dr. Minoru Nomura	Dr. Liu Hsi-Chiang	Dr. T.J. Pandian
Prof. Meng Qingwen	Dr. T. Piyakarnchana	Mr. Jay L. Maclean	Dr. Mohamed Shariff
Dr. U. Raj	Prof. Meng Qingwen	Prof. H.P.C. Shetty	Prof. H.P.C. Shetty
Dr. Dionisia Rola	Prof. H.P.C. Shetty	Dr. Sena S. De Silva	Mr. Bernard R. Smith
Dr. Sena S. De Silva	Dr. Sena S. De Silva	Mr. Zhiwen Song	Prof. Fumio Takashima
	Dr. Elvira Tan (+)		

Fifth Council (1995-1998)	Sixth Council (1998-2001)	Seventh Council (2001-2004)	Eighth Council (2004-2007)
Dr. Mohamed Shariff - President	Dr. I Chiu Liao - President	Dr. Clarissa Marte - President	Dr. Chan-Lui Lee - President
Dr. Takafumi Arimoto	Dr. Takafumi Arimoto	Dr. Takafumi Arimoto	Dr. Subbanna Ayyappan
Dr. Angela Arthington	Dr. Angela Arthington	Dr. Yew-Hu Chien	Dr. Houngh-Yung Chen
Dr. Yew-Hu Chien	Dr. Yew-Hu Chien	Dr. Modadugu Gupta	Dr. Rafael D. Guerrero III
Dr. Maitree Duangsawasdi	Dr. Lee-Shing Fang	Dr. Roshada Hashim	Dr. Modadugu Gupta
Dr. Efren Flores	Dr. Efren Flores	Dr. Jo Jae-Yoon	Dr. Roshada Hashim
Dr. Edgardo Gomez	Dr. Modadugu Gupta	Dr. Chan-Lui Lee	Dr. Jae-Yoon Jo
Dr. In-Bae Kim	Dr. In-Bae Kim	Dr. I-Chiu Liao	Dr. Hisashi Kurokura
Dr. Liu Hsi-Chiang	Dr. Clarissa Marte	Mr. Gopinath Nagaraj	Dr. Clarissa Marte
Dr. Piamsak Menasveta	Dr. Piamsak Menasveta	Dr. S. C. Pathak	Dr. Mohan J. Modayil
Dr. S.C. Pathak	Dr. S.C. Pathak	Dr. S. Piyatiratitivorakul	Dr. S. Piyatiratitivorakul
Mr. Bernard R. Smith	Dr. Mohamed Shariff	Dr. Ida Siason	Dr. Shi-Yen Shiau
Dr. Aprilani Soegiarto	Mr. Bernard R. Smith	Dr. Nao Thuok	Dr. Ida Siason
Prof. Fumio Takashima	Dr. Rohana Subasinghe	Dr. Kamonporn Tonguthai	Dr. Yang Yi
Prof. Tang Qisheng	Prof. Fumio Takashima	Dr. Yang Yi	Dr. Fatimah Yusoff
Dr. Kamonporn Tonguthai	Dr. Kamonporn Tonguthai	Dr. Fatimah Yusoff	Dr. Yingqi Zhou
Dr. Jahara Yahaya		Dr. Yingqi Zhou	

Ninth Council (2007-2011)	Tenth Council (2011-2013)	Eleventh Council (2013-2016)	Twelfth Council (2016-2019)
Prof. Yang Yi -President (2007-09) Prof. Ida Siason - President (2009-11)	Dr. Derek Staples - President	Prof. Shuolin Huang - President	Dr. Joykrushna Jena - President
Dr. Chan-Lui Lee	Prof. Ida Siason	Dr. Derek Staples	Prof. Shuolin Huang
Dr. Derek Staples	Prof. Shoulin Huang	Dr. Alice Joan Ferrer	Dr. Alice Joan Ferrer
Prof. Roshada Hashim	Prof. Hisahi Kurokura	Prof. Aziz Arshad	Prof. Aziz Arshad
Prof. Fatimah Md. Yusoff	Dr. Zuridah Merican	Dr. Abol Munafi	Dr. Abol Munafi
Dr. Soon-Kil Yi	Dr. Aziz Arshad	Prof. Sang Duk Choi	Dr. Sirawut Klinbunga
Prof. Mohan J. Modayil	Dr. Soon-Kil Yi	Muhammad Fedi Alfiadi	Dr. Marieta Bañez Sumagaysay
Prof. Yingqi Zhou	Prof. Shi-Yen Shiau	Dr. Joebert D. Toledo	Prof. Chen-Huei Huang
Prof. Peter Walker	Prof. Jeong-Yeol Lee	Dr. Sirawut Klinbunga	Dr. Gopalakrishnan A.
Prof. Shi-Yen Shiau	Muhammad F. A. Sondita	Prof. XinZhong Wu	Prof. Atsushi Hagiwara
Prof. Jae-Yoon Jo	Dr. Joebert D. Toledo	Prof. Houngh Yung Chen	Dr. Min Jiang
Prof. Nguyen T. Phuong	Prof. Sang Duk Choi	Prof. Atsushi Hagiwara	Dr. Han-Ching Wang
Dr. Subbanna Ayyappan	Prof. M. C. Nandeesha	Prof. Chen-Huei Huang	Dr. Shunsuke Koshio
Prof. Hisahi Kurokura	Dr. Sirawut Klinbunga	Prof. Nguyen Phu Hoa	Prof. T. Lirdwitayaprasit
Prof. S. Piyatirativorakul	Prof. XinZhong Wu	Dr. Joykrushna Jena	Prof. Nicholas Paul
Dr. Shoulin Huang	Prof. Neil Loneragan	Prof. T. Lirdwitayaprasit Prof. Neil Loneragan	

12th AFS Council 2016-2019



Dr. J.K. Jena
President



Prof. Shuolin Huang
Immediate Past-President



Dr. Alice Joan Ferrer
Vice-President



Prof. Abol Munafi
Secretary



Prof. Aziz Arshad
Treasurer



Dr. Sirawut Klinbunga
Council Member



Prof. Atsushi Hagiwara
Council Member



Prof. Chen-Huei Huang
Council Member



Prof. T.Lirdwitayaprasit
Council Member



Dr. Gopalakrishnan A.
Council Member



Dr. Marieta B. Sumagaysay
Council Member



Dr. Min Jiang
Council Member



Dr. Han-Ching Wang
Council Member



Dr. Shunsuke Koshio
Council Member



Dr. Nicholas Paul
Council Member

14. In Memory of Our Senior AFS Members

Since its establishment in 1984, AFS has had many distinguished Honorary Life Members (HLM), Past Presidents (PP) and Senior Members who have served on the Council and who have contributed significant amount of their energy and time to support the society.

It is 35 years since the Society was established and some of these members have left us. The Society would like to remember these people and convey its sincere gratitude to all the distinguished members who have supported the Society. Below are some distinguished members who have passed away in recent years.



Prof.A. Kanazawa
HLM



Prof. Yang Yi
Past President



Dr.M.C. Nandeesh
Councillor



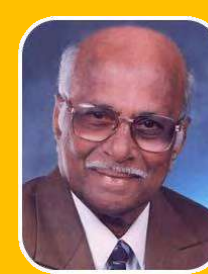
Dr. Shao-Wen
Ling -HLM



Dr.Katsuzo
Kuronuma- HLM



Dr Yasuo Ohshima
HLM



Prof. H.P.C. Shetty
Councillor



15. The Society Headquarters

At the 4th Asian Fisheries Forum held in October 1995, the Council, spearheaded by newly elected President, Prof. Mohd. Shariff and past presidents, Drs. Chua Thia Eng and Liu Hsi-Chiang, launched a funding drive for the newly acquired Society building. The drive called “Buy-a Brick”, where any interested party could buy a brick for USD10 each, stimulated a lot of enthusiasm from both members and friends of the Society present during the Forum. The Headquarters was a multi-leveled townhouse located at UP Village in Quezon City, Philippines. Purchase was made possible by utilizing savings generated during the last ten years and personal loans provided by past and present Council members (at zero interest rate). Donations solicited in Beijing covered part of the loan payments due.

The acquisition of a permanent home for the Society was made possible through the genuine efforts of its Councilors, members, colleagues and friends the world over and the Society is especially indebted to those who have provided the initial funds to put this up, especially Chua Thia-Eng, Flores, Efren Eduardo, Gomez, Edgardo, Japan Branch, AFS (Fumio Takashima), Liao I Chiu, Liu Hsi-Chiang, Menasveta, Piamsak, Shariff, Mohamed, Smith, Robert Bernard, Chen Jin-Tyan (Taiwan Deep Sea Tuna Boatowners & Exporters Assoc.), Lee Tien- Tsai (King Car Food Ind. Co., Ltd.), and Tsai Ting-Pang (Fong Kuo Shipbuilding Co., Ltd.).



Dr. Chua is assisted by Mr. Cui He (China) during Buy-a-Brick Campaign (4AFF, Beijing)

The New Headquarters in Malaysia

AFS moved to a new location on the campus of the Universiti Putra Malaysia (UPM) in 2008. A memorandum of agreement (MOA) was signed with UPM on 18th November, 2008 with AFS represented by the late Prof. Yang Yi (AFS President until July 2009), Prof. Fatimah Md. Yusoff (Honorary Treasurer) and Prof. Roshada Hashim (Honorary Secretary) with the presence of the Vice Chancellor of UPM, Prof. Datuk Dr. Nik Mustapha R. Abdullah. This MOA will be in place for five years with an option for a further five years.

The Society has been registered with the Registrar of Society Malaysia on 20th August 2008 and the secretariat officially started its operation in March 2009. The Secretariat is now fully functioning and being managed by the new Executive officer, Ms. Mariati Tiansin, who took over as Executive Officer from Ms. Emi Flores. Ms. Tiansin holds B.Sc. (Hon.) Degree in Petroleum Chemistry and formerly worked as a Research Assistant in Department of Chemistry, Faculty of Science, Universiti Putra Malaysia. Mariati left the Secretariat and was replaced by Ms. Jocyntha Joseph in late 2011. Further, Mrs. Malathi replaced Ms Jocyntha as Executive Officer in 2014 and she has been managing the office of the Society at present.



The new AFS Headquarters,
Institute of Bioscience, UPM,
Malaysia



The Signing the MOA for the new
AFS headquarters-November 2008

The Secretariat

Mailing Address

Asian Fisheries Society
C/o Laboratory of Marine Biotechnology,
Institute of Bioscience, Universiti Putra Malaysia
43400 UPM Serdang, Selangor, Malaysia
Email: info@asianfisheriessociety.org
Phone: +603-89472216



Mrs. Malathi Thanamsegaram
Executive Officer, AFS



Asian Fisheries Society

C/o Laboratory of Marine Biotechnology
Institute of Bioscience, University Putra Malaysia
43400 UPM Serdang, Selangor, Malaysia
Email: info@asianfisheriessociety.org
Phone: +603-8947 2216, Fax: +603-8947 2217