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ASIANFISHERIES SOCIETY

e-Newsletter

MESSAGE FROM EDITOR

FAO has released its annual report on The State of World Fisheries and Aquaculture 2024 which gives details of the sector as of 2022. Just to give an idea where Asia stands with respect to production – 70% of global aquatic animal production comes from Asia, while aquaculture in Asia contributes over 88% to global aquaculture production indicating the importance of the region not only to global fish production, but also its contribution to global food, nutrition and livelihood security.

Asian Fisheries Society through its branches and sections and the research and development organisations in the region have been contributing immensely to these developments. The report further indicates that women constitute 24% of the workforce in the sector and over 62% in post-harvest. Society's Gender in Aquaculture and Fisheries section has been very active in addressing the gender issues and it has a major role to play in the future. Those interested can download the full FAO report from: https://openknowledge.fao.org/server/api/core/bitstreams/53a2c5a2-f531-480c-96c0-706a43480571/content.

This newsletter gives summary of various activities undertaken by the AFS branches and sections in the last six months. Members are once again encouraged to contribute to the Newsletter the outputs from their research, conferences, training programs held, etc.

M. V. Gupta

Editor

Inside this issue:

Message From the President

Greetings and welcome to the July newsletter. In the last six months, the Council, Branches, Sections and Network of AFS have again been very active (see separate reports for the E-newsletter). Following the last Council meeting in December, Council has had one special Meeting (6th May 2024) to focus on the arrangements for the 14th Asian Fisheries and Aquaculture Forum (AFAF) and one full Council meeting in Kuala Lumpur Malaysia (July 12). The Executive Committee of Council has also met to consider 14AFAF, the journal and progress on the website and the students and early career researchers group.

I became Editor-in-Chief of the Society's journal, Asian Fisheries Science, in January 2024 and meet weekly with the Assistant Editor, Dr Sanjoy Banerjee, to discuss the status of manuscripts and progress of issues. We have reviewed our Editorial Board, held its first online meeting and investigated progress in acquiring an impact factor for the Journal.

I have also been involved in guiding the Students and Early Career Researchers group (ECRs), coordinated by Dr Clara Obregon and Mr Carlo Vergel. They have had 5 online meetings, with a total of 35 participants, and provided valuable advice to Council on how AFS can best provide support for ECRs. Matters like establishing focussed sessions for ECRs in our conferences and forums, supporting access to funding for conferences and research projects, and establishing a mentor/mentee program, were some of those identified by the ECRs. They have established a newsletter aimed at ECRs and the first issue should be published online soon.

Council has also been discussing the value of webinars for AFS members and people in the region. With guidance from Prof. Alice Ferrer, we aim to hold our first webinar in August, 2024. The next council meeting will be held on 11th February 2025, immediately before the 14AFAF in New Delhi. This will be the final meeting of the 14th Council and the 15th Council will be elected during the General Assembly at 14AFAF.

The breadth and depth that we have in our Society and the contribution by our members in fisheries, aquaculture, fish health and the cross-cutting disciplines in the social sciences and gender in aquaculture in fisheries, is inspiring. I am also constantly reminded that Asia is the global seafood basket and what we do as individuals and a Society counts not only in Asia but is very significant to global seafood production. Thank you for your participation in AFS and contributions to the Society. I look forward to meeting AFS members (past, present and new) at 14AFAF in New Delhi in February 2025.

President 14th AFS Council
Professor Emeritus Neil Loneragan

GAF Section Business

The GAFS ExeComm held an online meeting on March 26, 2024 to discuss the business of the GAFS for the coming months.

GAF8 Publications and Products

ICSF Yemaya Newsletter: GAF8 was supported by ICSF through its publication 'Yemaya'. The Yemaya Newsletter #68 presented the report of the panel discussion from GAF8 titled 'Asia/Gender: The gendered economy of dried fish' which highlighted Mapping the Social Economy of Dried Fish in South and Southeast Asia for Enhanced Wellbeing and Nutrition.

- Yemaya #68: " Asia/Gender: The gendered economy of dried fish " panel discussion report from GAF8: https://www.icsf.net/yemaya/asia-gender-the-gendered-economy-of-dried-fish/

ICSF Yemaya Newsletter

The latest annual E-Newsletter of the Gender in Aquaculture and Fisheries Section (GAFS) of the Asian Fisheries Society was uploaded in the GAFS website which include the Stories from Major Events since our last edition, GAFS Contributions to Global Consultations and New Projects, Reports and Research - https://genderaquafish.org/newsletters.htm

Project

- GAFS has been awarded a new project "*Gender Equity in Freshwater Fisheries Conservation*" supported by The Nature Conservancy (TNC). The main objectives of the project are to conduct a global scan on the status of gender equity in freshwater fisheries; to summarize the status of gender equity in freshwater fisheries in seven countries using the 2023 Illuminating Hidden Harvests Report, country-specific resources (gender analyses and action plans developed by TNC), additional published materials; and to identify and assess the key groups and institutions to engage in order to promote gender equity in freshwater fisheries.
- The project "*Making nature-based climate solutions (NbCS) in aquaculture in Southeast Asia monitoring more gender-responsive: What gets measured gets done*" supported by IDRC Canada's AQUADAPT-SEAPAC grant is in progress. The monitoring schema will be developed soon and stakeholder meetings and pilot projects are to take place this year.

CAFI SSF Network Membership

GAFS joined membership with the CAFI SSF Network which is a Global Network for capacity building to increase access of small-scale fisheries to financial services and is an FAO supported initiative endorsed by rural finance stakeholders from Africa, Asia-Pacific, Latin America, and the Caribbean regions. CAFI SSF Network act as a platform where members promote, develop, and facilitate capacity building, knowledge exchange, advocacy and awareness, share experiences, good practices and provide support and advice to stakeholders to increase access of SSF to financial services. Dr. Nikita Gopal, Chair – GAFS, is on the Steering Committee of the CAFI SSF Network, and attended its first meeting organized virtually on 31 May 2024.

GAFS Communications

GAFS continues to be very active in its outreach, through its website, its GAFS members e-mail group, Genderaquafish e-mail group and social media outlets (Twitter and Facebook). GAFS members are receiving a monthly premium news service on GAF news items.

Keep in touch with GAF Website: https://www.genderaquafish.org/;

https://www.genderequality.genderaquafish.org/

Facebook Page: https://www.facebook.com/AFS-Gender-in-Aquaculture-and-

Fisheries181176555231544/

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

Contributed by: Nikita Gopal, Kyoko Kusakabe and Kafayat Fakoya

AFS SECTIONS

Fish Health Section (FHS)

Newsletter

FHS eNewsletter No. 21 was released in January 2024 and is available for online access on the FHS website.

Special Edition for DAA11 publication

A total of 14 scientific papers from DAA11 have been published across two issues in a special edition of the Malaysian Fisheries Journal. The first issue has already been uploaded to the FHS website, and the second issue is expected to be available online by the end of June 2024.

Release of DAA12 Teaser

The DAA12 teaser was unveiled during the FHS conference 2023 in Bangkok, Thailand, on 6th September 2023. It has also been uploaded to the AFS and FHS websites.

Appointment of Exe-com FHS as Director General of NACA

FHS-AFS congratulates Dr Eduardo Leaño on his appointment as the new Director General (DG) of Network of Aquaculture Centres for Asia-Pacific (NACA), Bangkok. Dr Eduardo was elected during the 33rd NACA Governing Council meeting in New Delhi, India, from 5-8th March 2024 for a five-year tenure spanning from May 2024 to April 2029. He succeeds Dr Huang Jie, who successfully completed his five-year term in April 2024. FHS-AFS sincerely acknowledges Dr Jie for his support during his tenure as the DG of NACA in relation to FHS-AFS activities, and extends best wishes to Dr. Ed (also known by this name among his fish health colleagues) for a very successful and productive tenure ahead.

Conference organized by FHS

Post-Event Report- The Fish Health Section Conference 2023, Thailand

The Fish Health Section Conference: From the Pillars to the Next was successfully hosted from 6th to 8th September 2023 at Swissotel Bangkok Ratchad, Thailand. Initially conceptualized as a "handover conference" with the theme "Learning from the past to inform the future", the event brought together 17 FHS pillars, comprising founding members and past officers/members of the Executive Committee (ExeCom). Led by Dr. Richard Arthur (Canada), who established the Asian Fish Health Network (under an IDRC project) that later evolved into the FHS, the gathering provided an opportunity for the pillars to reconnect, offer advice, and share their experiences with the younger generation of fish health enthusiasts. The conference attracted 158 participants and students from 16 countries worldwide, including Australia, Bangladesh, Canada, China, Ethiopia, Indonesia, Italy, Japan, Malaysia, Norway, Philippines, Saudi Arabia, Taiwan, Thailand, United Kingdom, and Vietnam. A total of 35 abstracts were submitted, leading to 20 oral presentations and 15 poster presentations during the event.

Upcoming Event-*The 12th Symposium on Diseases in Asian Aquaculture (DAA12), India*

Since FHS's inception in 1990, the DAA symposia have advanced aquatic animal health research, with previous symposia held in various locations such as Bali, Indonesia in 1990; Phuket, Thailand in 1993; Bangkok, Thailand in 1996; Cebu, the Philippines in 1999; Goldcoast, Australia in 2002; Colombo, Sri Lanka in 2005; Taipei, Taiwan in 2008; Mangalore, India in 2011; Ho Chi Minh City, Vietnam in 2014; Bali, Indonesia in 2017; Sarawak, Malaysia in 2022. The upcoming DAA12 series will be hosted in Chennai, India in 2025, aiming to further enhance this legacy by fostering new collaborations and advancing the science of aquatic animal health.

The FHS-AFS is delighted to announce the DAA12, during September 23-27, 2025, to be organised in collaboration with the ICAR-Central Institute of Brackishwater Aquaculture, Chennai. This esteemed event will be held in the vibrant city of Chennai, Tamil Nadu, India, renowned for its rich cultural heritage, beautiful beaches, and historical landmarks, including the UNESCO World Heritage Site of Mahabalipuram and hub of shrimp aquaculture This offers an exceptional setting for this significant symposium, where development, science fuses with ancient civilization. We extend a warm invitation to academia, industry professionals, researchers, and students from across the globe to join us in this intellectual gathering.

The theme for DAA12 is "Transformative Innovations Shaping the Future of Aquatic Animal Health Management" aiming to bring together experts in aquatic animal health to discuss the latest research developments, trends, and innovative solutions. The event will feature thematic sessions, plenary lectures by leading scientists, and ample opportunities for networking and collaboration. DAA12 will be a four-day event, including scientific sessions and cultural visits, accommodating around 300 to 350 delegates, including above 100 international participants. To ensure a focused and inclusive experience, there will be no parallel sessions, and space will be provided for poster presentations and exhibitions. A dedicated symposium website will be launched soon. We look forward to welcoming you to Chennai for DAA12 and engaging in fruitful discussions to address the emerging challenges in aquaculture with innovative and sustainable solutions!

Asian Fisheries Social Scientists Network (AFSSRN)

The AFSSRN remains steadfast in attaining its objectives "to promote effective interaction and cooperation among persons involved in aquaculture and social sciences research" (Ref: AFSSRN Bylaws). Along this purpose, the AFSSRN has the following activities during the 1st semester of 2024.

1. Research: On-going study on the "Knowledge, Perception and Attitude of Stakeholders on Single-Use Plastic and its Effects on the Marine Environment: a Gendered Value Chain Analysis of Fisheries," with the following specific objectives: (1) to describe gender differentials in the utilization of single-use plastics by players in the value chain; (2) to explore the willingness to reduce plastic use by fisheries value chain players; and (3) to identify policy implications towards reducing plastic use, hence, addressing the negative issues related to single-use plastics in the marine environment. Results are expected to be disseminated in a conference at the end of 2024.

2. Membership Promotion As of 20 June 2024, the AFSSRN membership increased to 182, with three (3) new members added to the list. They are Victoria Syddall (New Zealand), Cherry Favor (Philippines), and Cynthia Yee Man (Singapore). Prof. Budy Wiryawan (Indonesia), already an AFS member, joined the AFSSRN too.

3. The 5th issue of the AFSSRN Bulletin (January to June 2024) has been released to its members. It features the researches done by its members in their capacity either as lead researcher/author or co-author.
    a. Small scale tuna fisheries profiles in the Indonesia archipelagic waters UMI MUA'WANAH, Head of Research Center for Economics of Industry, Services and Trade, Indonesia (Co-authors: Freshty Yulia Arthatiani, Permana Arie Soejarwo, Yesy Dewita Sari, Armen Zulham, Sonny Koeshenderajana, Hikmah)
    b. Well-being of artisanal fishing communities and children's engagement in fisheries amidst the COVID-19 pandemic: a case in Aklan, Philippines RODELIO F. SUBADE, University of the Philippines (Co-authors: Ronald J. Maliao, Pepito Fernandez)
    c. Decolonizing Sea Turtle Conservation JARINA MOHD JANI, Universiti Malaysia Terengganu (Co-authors: Kartik Shanker, Michelle Maria, Michelle Maria Early Capistran, Jose Urteaga, Hector Barrios-Garrido, Bryan Wallace)

AFSSRN BULLETIN

Bi-annual Newsletter of the Asian Fisheries Social Science Research Network
Asian Fisheries Society

Issue 5 January to June 2024

2024 AFSSRN Webinar Series

Three webinars will be conducted in the months of July, August and September 2024 on the theme, ***"Narrowing the social science and fishery technology divide."*** The first will be on 31 July 2024 at 10:30am-11:30am (India time), and will feature Dr. Ananthan, P.S, Professor/Principal Scientist at ICAR-CIFE, on the topic, "Governing Inland Fisheries: The Indian Story. His talk will cover how inland fisheries/resources are governed, drawing insights from Indian context. Governance-related challenges and ways to mainstream social sciences in fisheries development will likewise be tackled.

A warm welcome to the new AFSSRN members

Victoria Syddall *(New Zealand)*
Cherry Favor *(Philippines)*
Cynthia Yee Man *(Singapore)*
Budy Wiryana *(Indonesia)*

RESEARCH FEATURE: INDONESIA

Small scale tuna fisheries profiles in the Indonesia archipelagic waters

UMI MUA'WANAH, Head of Research Center for Economics of Industry, Services and Trade, Indonesia (Co-authors: Freshty Yulia Arthatiani, Permana Arie Soejarwo, Yesy Dewita Sari, Armen Zulham, Sonny Koeshendrajana, Hikmah)
https://www.researchgate.net/publication/356272184_Small_scale_tuna_fisheries_profiles_in_the_Indonesia_archipelagic_waters

Indonesia is one of the world's largest tuna producers, contributing 16% to world tuna production. The dominant tuna species caught in Indonesia are Albacore Tuna (*Thunnus alalunga*), Madidihang/Yellowfin Tuna (*T. albacares*), Big Eye Tuna (*T. obesus*), and Southern Bluefin Tuna (*T. maccoyii*). Currently, the government of Indonesia is developing the harvest strategy for skipjack and yellowfin tuna in the inter-pelagic waters of Indonesia. Developing a harvest strategy is considered an essential step toward ensuring the sustainability of Indonesia's tuna stocks. Developing methods to incorporate social and economic considerations into this harvest strategy is an important piece of the national and regional tuna fisheries management puzzle. Specifically, incorporating social and economic considerations into fisheries planning can assist in identifying realistic and implementable strategies, forecasting the likely impacts of resource allocation decisions, and identifying clear objectives that management can be assessed against over the long term. The tuna fisheries have contributed significant jobs and livelihoods to the coastal communities. Profit and revenue sharing is a common remuneration system in tuna fisheries throughout Indonesia. However, these fishers are vulnerable, given their economic and welfare conditions and usually limited options for another livelihood. Small fishers have limited access to livelihoods, access to finance, and access to skills or fishing technology. Small-scale tuna fishing business profits can be improved through a partnership strategy and an agreed-upon profit-sharing scheme. The government had issued a policy written in Law No. 16 / 1964 regarding the fishery sharing system to create order and regulations in implementing profit sharing and to protect low-income fishermen from those with high (strong) incomes. However, the law that should provide protection has not been optimal yet. Therefore, the inclusion of socio-economic performance or indicators into the management of tuna fisheries (Harvest Strategy) is crucial in Indonesia.

RESEARCH FEATURE: PHILIPPINES

Well-being of artisanal fishing communities and children's engagement in fisheries amidst the COVID-19 pandemic: a case in Aklan, Philippines

RODELIO F. SUBADE, University of the Philippines Visayas(Co-authors: Ronald J. Maliao, Popito R. Fernandez) *https://www.nature.com/articles/s41599-023-01716-9*

This study describes the multifaceted effects of COVID-19 pandemic on the socio-economic and psychosocial well-being of artisanal fishing communities in Central Philippines. Child labor and their education were explored. Four hundred artisanal fishing households, with 792 children from 10 coastal municipalities in Aklan province were surveyed in May–December 2020 through face-to-face household interviews. COVID-19 pandemic worsened poverty due severe disruptions in fishing and marine tourism-related livelihoods. Economic impoverishment was more pronounced in 41% of households with more than five family members. Furthermore, 57% households believed that learning difficulty increased by 81% due to the blended online education modality. Child labor intensified, and children stopped schooling. A significant decline in happiness index pre-COVID was observed indicating extreme socio-economic challenges. However, interpersonal relations in most households improved, underscoring women's stabilizing and nurturing role. This signifies that cooperative and nurturing actor relationships can be generated in a crisis. Policies that mainstreamed local communities' reproductive health, family planning, and programs that diversify socioeconomic, environmental, and technological assets must be promoted. The goal is to holistically improve human well-being by increasing or sustaining stocks of these assets to promote resilience and sustainability amidst crisis and complexity

RESEARCH FEATURE: MALAYSIA

Decolonizing Sea Turtle Conservation

JARINA MOHD JANI, Universiti Malaysia Terengganu (Co-authors: Kartik Shanker, Michelle Maria, Michelle Maria Early Capistran, Jose Urteaga, Hector Barrios-Garrido, Bryan Wallace) *https://www.seaturtlestatus.org/articles/decolonizing-sea-turtle-conservation*

Sea turtles embody all that is wise and wonderful about nature. Many of us believe that through their migrations and complex life cycles, sea turtles connect biomes, hemispheres, countries, and cultures. They pick up nutrients, transport them from marine to terrestrial realms, deposit them, and vice versa. Moreover, they connect us, the community of professional researchers; conservationists; and countless volunteer beach-walkers, crowd-talkers, and enthusiasts. So it shouldn't be surprising that we—the global sea turtle community—sometimes behave like our shelled muses. Many of us also migrate—from the places we call home to places where we work, sometimes back again, and sometimes elsewhere. We follow the turtles, connecting our homes with theirs. But as it turns out, not all migrations are benign (see "The Migrations of Sea Turtle People" maps below). In truth, the broader patterns of migration within the sea turtle community reflect imbalances of resources, power, and agency, plus the conservation values and practices that are deeply rooted in neocolonialism as a global phenomenon. Decolonization has become a term du jour, reflecting a wave of sentiment that we need to right the wrongs of centuries of the Global North dominating the fate of the Global South. Unfortunately for us, sea turtle conservation is no exception. As researchers and resources have moved around the world, they have done so not in symmetrical patterns, following seasons or ocean conditions like turtles, but instead they have moved along a landscape that is shaped and skewed by neocolonialist structures and practices. As a result, those movements have abetted structures and hierarchies that are inimical to our notions of a fair and equitable society.

FEATURED LEAD RESEARCHERS/AUTHORS

UMI MUA'WANAH, PhD

Awarded P.hD from Connecticut University in USA. A senior researcher, currently Head of the Research Centre for Economics of Industry, Services, and Trade. She has various global research network on tuna fisheries.

RODELIO F. SUBADE, PhD

UP Scientist 3 distinction (2014-2022), Professor 12 in Economics, and Dean, Graduate School, University of the Philippines Visayas. A 2019 recipient, Macil-ing Dulag award for his outstanding research in environmental economics.

JARINA MOHD JANI, PhD

Faculty, Science and Marine Environment, Universiti Malaysia Terengganu. A member of the Biodiversity Conservation and Management Programme, her work focuses on the interaction between nature and society

ANNOUNCEMENTS

4. 2024 AFSSRN Webinars

The first of a three-part AFSSRN webinar series on the theme, "Narrowing the Social Science and Fisheries Technology Divide," will be conducted on 31 July 2024. The speaker is Professor/Principal Scientist, Indian Council of Agricultural Research – Central Institute of Fisheries Education, Dr Ananthan P.S. He will talk on "Governing Inland Fisheries: The Indian Story."

5. Release of AFSSRN Flyer

Part of membership promotion, the AFSSRN flyer was recently released. Benefits of AFSSRN members include:

a. Capacity development and training – free registration to AFSSRN-organized trainings, workshops and webinars

b. Research collaboration – link with peers and conduct multi-country fisheries social science research

c. Research dissemination and utilization – get published in AFSSRN and AFS publications and journals

d. Research mentorship – be engaged with senior scientists

e. Fisheries social science advocacy – heighten the importance of the social sciences in fisheries instructions, extension, research and technologies

f. Fisheries social science research updates – free copies of the AFSSRN Bulletin; access to the AFSSRN website and Facebook.

MARIETA BAÑEZ SUMAGAYSAY, PhD
AFSSRN Chair, 2021-2024

AFS BRANCHES

Asian Fisheries Society Indian Branch (AFSIB)

13th Indian Fisheries and Aquaculture Forum (13th IFAF)

The Indian Branch of the Asian Fisheries Society (AFSIB) has been holding triennial Indian Fisheries and Aquaculture Fora regularly in different parts of India since 1987. The 13th Indian Fisheries and Aquaculture Forum, focusing the major theme on "Fostering Indian Fisheries and Aquaculture for Attaining Sustainable Development Goals" was jointly organized by the Asian Fisheries Society Indian Branch (AFSIB) in collaboration with the Inland Fisheries Society of India (IFSI), Barrackpore and ICAR-Central Inland Fisheries Research Institute (ICAR-CIFRI), Barrackpore along with the Professional Fisheries Graduate Forum (PFGF), Mumbai from 23-25 February 2024 at Biswa Bangla Convention Centre, Kolkata, India. Shri Parshottam Rupala, Hon'ble Union Minister for Fisheries, Animal Husbandry and Dairying, Government of India inaugurated the forum.

More than 900 Scientists, Researchers and Fisheries Professionals from different parts of the country and abroad participated in the Forum. More than 1300 researchers, academicians, fishers & fish farmers, and industrialists participated in the 3-day long deliberations that included 45 Technical sessions/sub-sessions. besides 4 Satellite Symposia and 5 Conclaves including Farmers' Meet and Industry Conclave.

The presentations were made under the following sections:

1. Aquaculture Production
2. Fish and Shellfish Nutrition and Feed Technology
3. Aquaculture Genetics, Breeding and Biotechnology
4. Aquatic Animal Health Management
5. Aquatic Environment and Management
6. Aquatic Biodiversity, Stock Assessment and Conservation
7. Aquatic Food Safety and Quality
8. Aquatic Food processing, Product Development, Value Addition and Packaging
9. Fishing Technology and Fisheries Engineering
10. Socio-economics, Fisheries Policy, Capacity Building, Livelihood and ICTs in Fisheries

In addition, four Satellite Symposia on 'Fish genetic resource and conservation', 'Riverine fisheries: Habitat mapping and environmental health', 'Sustainable fisheries, and aquaculture in Northeast India', and 'Natural farming' and 5 Conclaves including Farmers' Meet and Industry Conclave. were also held during the Forum.

Various awards viz. Professor H.P.C. Shetty award, Professors T.J. Pandian and A.J. Matty award, Dr. Pillay Aquaculture award, Dr. M.C. Nandeesha Fish Farmer's award, Shri J.V.H. Dixitulu Extension award and Young Scientist awards were given away during the Forum.

Hon'ble Union Minister Government of India Shri Parshottam Rupala, inaugurated the forum and delivered the inaugural speech

Hon'ble Secretary, Department of Agricultural Research and Education (DARE) and Director General ICAR Dr Himanshu Pathak addressing the participants.

World Environment Day and Fish Migration Day

AFSIB was among the organizers of the events "World Fish Migration Day and World Environment Day 2024" held at the protected and renowned Fish sanctuary Shishila Matsyadhama, Belthangady, Karnataka on 05 June 2024. It was inaugurated by Shri. M. Dinesh, Administrative officer, Shishileswara temple Belthangady.

Plantation of saplings during the celebration of World Environment Day

Dr. Rajesh K. M., Principal Scientist (ICAR-CMFRI) and Secretary, Asian Fisheries Society, Indian Branch (AFSIB) addressing the participants.

14th Asian Fisheries and Aquaculture Forum (14th AFAF)

The 14th Asian Fisheries and Aquaculture Forum (14AFAF) will be organized by the Asian Fisheries Society (AFS), in collaboration with the Indian Council of Agricultural Research (ICAR), and Asian Fisheries Society Indian Branch (AFSIB), during 12-15 February 2025 at New Delhi, India. The main objective of this Forum is to provide an international platform for eminent scientists, young researchers, and other stakeholders across the globe to share their research experiences and innovative ideas. By facilitating the exchange of a diverse range of knowledge and expertise, the Forum with the theme 'Greening the Blue Growth in Asia-Pacific' aims to address key issues towards developing sustainable fisheries and aquaculture.

Planned Technical Sessions

1. Resource Assessment and Management for Sustainable Fisheries
2. Sustainable Aquaculture Intensification and Diversification
3. SMART Aquaculture for Resource-use Efficiency
4. Fish Genetics, Genomics & Biotechnology
5. Aquatic Animal Nutrition, Feed Technology, and Alternate Feed Resources
6. Aquatic Animal Health Management and Antimicrobial Resistance
7. Aquatic Biodiversity, Environment and Ecosystem Services
8. Impact of Climate Change on Fisheries & Aquaculture and Resilient Strategies
9. Post-harvest Processing, Value-addition, and Food Safety
10. Socio-economic Dynamics & Extension in Fisheries and Aquaculture
11. Gender in Fisheries & Aquaculture
12. Fisheries Education, Skill Development, and Technology Incubation
13. Fish Marketing, Value Chains and Trade
14. Fisheries Policy, Law, and Governance

Dr. Han-Ching Wang takes on the role of the director of the National Library of Taiwan

- Prof. Han-Ching Wang was previous council member of AFS and also a distinguished professor in the Department of Biotechnology and Bioindustry Sciences at NCKU. She is not only a famous shrimp disease researcher and has also served as the director of NCKU Library since 2019. During which time the library of NCKU received the Ministry of Education's "Benchmark Library Award" and she also got "Outstanding Librarian Award. Therefore, she was selected to become the director of National Library of Taiwan on Feb, 2024. We look forward to her continuing to exert his influence in his new role, preserving and promoting the history and knowledge of aquaculture.

Photo from the website of NCKU

The successful rehabilitation technology for the Bearded croaker (*Johnius amblycephalus*) by Fishery Research Institute of Taiwan

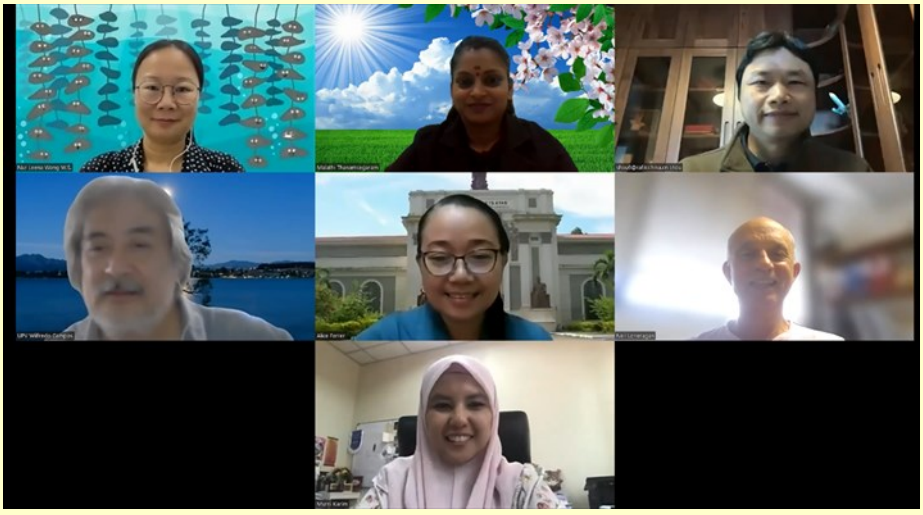
- Bearded croaker is a common fish species in the waters around Taiwan and is listed among Taiwan's top ten best fish. However, due to overfishing and climate change, its yield has sharply declined, causing the price of the Bearded croaker to soar to nearly 1,000 NT dollars per kilogram. According to the record, the amount of coastal bearded croaker has been decreasing to about 500 metric tons per year. Therefore, the Fisheries Research Institute invested in research and successfully bred Bearded croaker fry in 2022, becoming the first breeding record in the world. After two years of effort, they are now able to stably raise the fish. They will now release 300 fry, each over 10 centimeters long, to increase the marine population

News report from Youtube: https://www.youtube.com/watch?v=IUtbVKgkB2s

AFS SECRETARIAT NEWS

1.1 AFS EXECOMM Meeting (16th February 2024)

The Asian Fisheries Society Executive Committee meeting was held on Friday, 16th February 2024 using an online platform. There were 7 attendees, Prof. Alice Joan Ferrer, Prof. Wilfredo Campos, Prof. Liping Liu, Dr. Nur Leena Wong Wai Sin, Prof. Murni Marlina Abd Karim, and Mrs. Malathi Thanamsegaram joined this meeting.



1.2 AFS Special Hybrid Council Meeting

Asian Fisheries Society (AFS) Special Hybrid meeting was held on 6th May 2024 using an online platform. There is presence of the President, Secretary, Treasurer, and Executive Officer onsite, and 6 Councillors and Chairs of Sections and branches joined online.

Meet & greet with the Director of IBS

Meet up with the Head of Department JAQ & Department members

Meeting with UPM Press on AFS journal

Discussion over coffee with the Director of IAQUAS and management team

2.0 Membership

AFS encourages members to renew and to be Permanent Active Members (PAM).

Membership Account

The username and password remained as below:

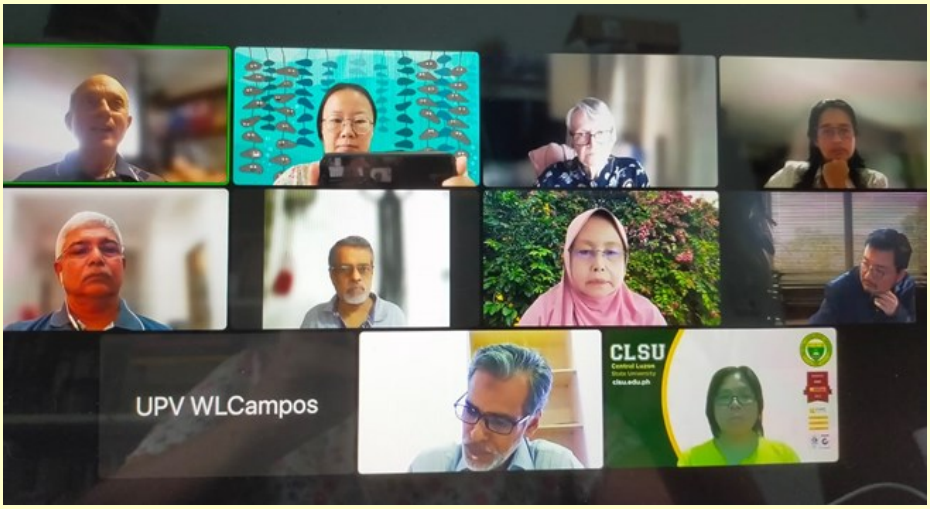
Username: ID Number **password: afs@123**

2.1 AFS Institutional Membership

The Asian Fisheries Society now welcomes institution members to join the Society. We are encouraging and inviting Institutions to join the AFS to enrich research and education within universities through links with society. These valued partners sustain the programs and activities of the AFS through an annual fee and they receive a range of benefits as well, such as:

- Booth discount for AFS conferences and preference for the position of the booth
- Discount for up to 5 members of the Institution in conferences
- Recognized institutional partner in the AFS website
- Link of Institutional website on AFS webpage
- Institution Profile and statement on conference program and webpage

3.0 Asian Fisheries Society - Editorial Meeting was held on Thursday, 27th June 2024 using an online platform.



AFS MEMBERSHIP RENEWAL NOTICE

Dear AFS Members:

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

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

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

Kindly renew your membership dues using online payment system at

http://www.asianfisheriessociety.org/join.php

or you may also request the membership form from Secretariat via

info@asianfisheriessociety.org.

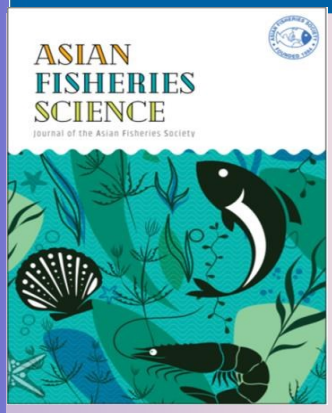
Membership is open for all!

Please apply your membership at http://www.asianfisheriessociety.org/join.php.

If you have any question, kindly email us at info@asianfisheriessociety.org

SYNOPSIS OF PAPERS VOLUME 37 (ISSUE 1) : ASIAN FISHERIES SCIENCE JOURNAL

Asian Fisheries Science



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Asian Fisheries Science 37 (1) 2024

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Exploring the Potential in Combining the Two Molecular Approaches, COI Barcoding and PCR-RFLP (COIBar-RFLP) in Identification of Selected Species of the Family Carangidae

LAHIRU MADUSHAN PANDI GAMAGE, DONA HEMALI NANDANA MUNASINGHE, MARINGA APSARA MADUMANJAREE RUPASINGHE

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The family Carangidae is considered a markedly diverse, widespread taxon. Due to the characteristic “cryptic diversity” and “hybrid speciation” within the family, there is an exigency for taxonomic approaches that go beyond traditional phenotypic modus in identifying species. Mitochondrial cytochrome c oxidase subunit - I (COI) barcoding gene region plays a significant role over phenotypic characters in identifying species. This study evaluates the combination of the two molecular approaches: the COI DNA barcoding and PCR-RFLP for judicious species discrimination. The partial mitochondrial COI gene region of the selected Carangid fish species was amplified and sequenced. Intraspecific and interspecific nucleotide divergences were computed by the Kimura-2-Parameter. The possibility of acquiring the same RFLP profiles given by the restriction enzymes HaeIII and MbOII was observed by the theoretical cleavage of 250 reference sequences of the corresponding gene. Hence, major and minority composite haplotypes of each species were obtained based on the fragment types derived by both HaeIII and MbOII. The resulting divergence values were compatible with the previously reported values for marine fish species. All the species were clearly differentiated by both RFLP banding patterns and the highest probability assumption of getting the same RFLP profile was compatible with the most abundant composite haplotype of each species. This reveals the practicability of the combination of two consolidated molecular approaches, COI barcoding and PCR-RFLP (COIBar-RFLP).

Enhancing Diatom, Cyclotella meneghiniana Growth Using Growth-Promoting Bacteria Isolated From the Phycosphere of Chlorophytes and Chrysophytes

NUR AMIRAH IZYAN NOOR MAZLI, FATIMAH MD YUSOFF, MUHAMMAD FARHAN NAZARUDIN, YAM SIM KHAW, HUI TENG TAN, MURNI KARIM

https://doi.org/10.33997/j.afs.2024.37.1.002

The relationship between microalgae and bacteria in a microenvironment has a significant role in enhancing the quality and quantity of microalgal production, which would in turn affect consumers' growth and nutritional quality, such as the zooplankton, which are important live feeds in aquaculture. Thus, selecting and characterising suitable microalgal growth-promoting bacteria (MGPB) for enhancing microalgal production is an important process since not all bacteria promote high growth. In this study, physcosphere bacteria associated with chlorophytes and chrysophytes were isolated, screened for their microalgae-promoting attributes and re-inoculated into microalgal cultures. A total of seven bacterial isolates were recorded to have multiple growth promoting traits. These seven potential MGPB were molecularly characterised using 16S rRNA approach. The phylogenetic tree of the isolated bacteria demonstrated the dominant bacteria associated with the chlorophytes were in the class acteroidetes, while the chrysophytes appeared to be associated with Firmicutes bacteria suggesting that the compositions were strictly species-specific to the microalgae host. Enhanced Cyclotella meneghiniana growth by the seven isolated bacterial strains was highly dependent on the growth-promoting traits; especially those demonstrated by Pseudomonas hibiscicola and Ochrobactrum haematophilum. These two bacteria showed the potential to enhance the quality of microalgae, and they could be bioencapsulated and used to improve the quality of zooplankton as one of the main live feeds in the aquaculture industry.

An Analysis of Aquaporin in the Oocyte Maturation of Teleosts, Clarias gariepinus and Channa punctatus

LUNI SHARMA, POOJA KAUSHIK, ILA SINGH, NEETA SEHGAL, VARUNENDRA SINGH RAWAT

https://doi.org/10.33997/j.afs.2024.37.1.003

Aquaporin or water channels have been reported to play a significant role in reproduction of marine and freshwater fishes. This study deals with the elucidation of the role of aquaporins 1 and 3 during oocyte maturation and hydration in benthophil and pelagophil eggs of fishes. Partial sequencing of aqp1 and aqp3 genes of Clarias gariepinus and Channa punctatus was carried out. Expression of aquaporin genes was assessed, and a direct correlation was observed between the transcript number of aqp1 and water content of oocytes during oocyte maturation and ovulation in demersal eggs of C. gariepinus. In silico characterisation of aquaporin 1 of Clarias magur, a congeneric species of C. gariepinus and aquaporin 3 of C. gariepinus, established the presence of conserved NPA (asparagine-proline-alanine sequences) motifs in them. The comparison of expression pattern for both the aquaporins 1 and 3 were also observed in the preliminary study of pelagophil eggs collected from C. punctatus. Elucidation of the role of aquaporins in the movement of fluids in teleost gonads and gametes may help to enhance the success rate of oocyte cryopreservation and thus will help in improving the breeding programs of cultured fishes and the protection of endangered fishes.

Effect of Insect Feed on Fish Growth: A Review

AHMAD MANAN MUSTAFA CHATHA, SAIMA NAZ, DURALI DANABAS

https://doi.org/10.33997/j.afs.2024.37.1.004

The demand for sustainable and efficient protein sources in aquaculture has led to an increasing interest in exploring alternative feeds for fish. In recent years, insects have emerged as a promising option due to their nutritional value, economic viability, and potential to alleviate the environmental impact of traditional fish meals. This review critically examined the effect of insect feed on fish growth. The review encompasses various insect species, feed formulations, and fish species, providing insights into the factors influencing growth outcomes. By synthesising current knowledge, this review aims to guide future research and decision -making processes for optimising fish nutrition and production while promoting ecological sustainability.

Recent Declining Trends in Pelagic Fish Catches in the Indian Ocean off Sri Lanka: Is Gill Oxygen Limitation Theory (GOLT) a Possible Explanation?

NUWAN D.P. GUNWARDANE, M.D.S.T. DE CROOS, UPALI S. AMARASINGHE

https://doi.org/10.33997/j.afs.2024.37.1.005

Recent trends in the pelagic fish landings of multi-day fishing fleets operated from Sri Lanka indicated significant declines in many fish species. Therefore, the present preliminary analysis investigates the perceptions of fishers on recent declining trends of pelagic fish landings from offshore areas of the Indian Ocean and further investigates whether the most common pelagic species landed in Sri Lanka conform to the gill oxygen limitation theory (GOLT) and to speculate GOLT as a possible explanation to such trends. According to the skippers of fishing vessels interviewed, such declines were possibly attributed to shifting of the areas of occurrence of pelagic fish species, making them less vulnerable to multi-day fishing vessels. As climate change and deoxygenation are major stressors affecting fish stocks, there is a challenging need for disentangling the impacts of these stressors from the effects of overfishing. The 18 most common pelagic fish species harvested from the Indian Ocean confirmed to the predictions from the GOLT, suggesting that shifting of these stocks could be due to deoxygenation which may have been triggered by increased sea surface and sub-surface temperatures. Therefore, fishery-independent surveys are needed to investigate the shifting of areas of occurrence of pelagic fishes in the Indian Ocean to understand their areas of occurrence the further investigate the relevance of GOLT for defining regional fisheries management plans.

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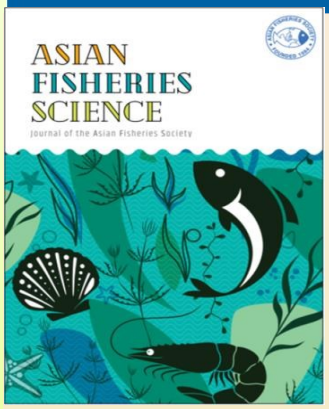

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Molecular Identification of an "Abnormal Tuna" Caught in the Taiwan Strait off Southwestern Taiwan

MING-CHIH HUANG

https://doi.org/10.33997/j.afs.2024.37.2.001

A female tuna of odd appearance, with the size of a Pacific bluefin tuna (Thunnus orientalis), anal fin count of bigeye tuna (Thunnus obesus), pectoral fins of yellowfin tuna (Thunnus albacares), caught in waters of Taiwan, received considerable media attention. This tuna has now been identified by molecular systematic means. Fishermen and fish merchants suggested it was a hybrid form, unique in living memory; however, it had matured ovaries and developing ova. To confirm whether this fish was a hybrid, its parental species was determined by analysing the cytochrome b gene (cyt b) and cytochrome c oxidase subunit 1 (COI) sequences of the mitochondrial DNA for maternal inheritance, and the internal transcribed spacer 1 (ITS1) gene sequence from the nuclear DNA to confirm both parents' lineages. According to cyt b and COI, the mother of the peculiar tuna was a Pacific bluefin tuna (T. orientalis), and the ITS1 sequence showed that both parents were of this species. It was therefore concluded that despite the mixed morphological appearance, this abnormal tuna was a Pacific bluefin tuna, not a hybrid.

Determinants of Fisheries Trade Competitiveness: The Case of Malaysia

BEE HUI SOH, GHEE-THEAN LIM, SOO Y. CHUA

https://doi.org/10.33997/j.afs.2024.37.2.002

Malaysia is a small open economy endowed with fisheries resources; however, the rapid growth of international trade has changed the patterns of fish trade dependence. It has now become a fish importer and experienced a critical fish trade deficit since 2009, implicating eroding trade competitiveness of Malaysian fisheries in the global market. The existing empirical studies on competitiveness conclude that Malaysia loses the competitive status in the international fish market, but the Trade Competitiveness Index (TCI) and its determinants have not been thoroughly explored. Hence, this present study examined the short and long run effects of trade openness, the exchange rate and fishery employment on the TCI of Malaysian fisheries during 1976–2018, using an Autoregressive Distributed Lag (ARDL) approach. The findings conclude that Malaysia has lost its trade competitiveness in terms of TCI in the global fishery market. The ARDL results show that an appreciation of the exchange rate as well as more trade openness and fishery employment enhance the TCI in the short run (i.e., a few years), but have negative effects in the long run. To ameliorate trade competitiveness, higher restrictions on fish imports are recommended, as well as more adoption of science and technology in fisheries in the long run, given the nature of the exchange rate, appreciation policies are proposed in the short run.

Opportunity to Export Fish Directly From the Outermost Islands of Indonesia: Exploring Value Chain and Power Dynamics in Fisheries

ANTA MAULANA NASUTION, VIGA ANANDA WICAKSONO, INTAN ADHI PERDANA PUTRI, AWANI IREWATI, IMAM PRAKOSO

https://doi.org/10.33997/j.afs.2024.37.2.003

The fishers in the outermost islands of Indonesia have an abundant fish catch but local markets have limited capacity to absorb large quantities of fish which limits the potential economic returns to the fishers. This research examines the current fishing value chain in the Sangihe and Talaud islands, which are considered the outermost locations in Indonesia. The study also investigates the roles and influence of each participant within the value chain and the potential for direct export of fishery goods from these islands, bypassing transit points. The contemporary fishing value chain, power dynamic, and fishery direct export issue were investigated. The results show that the fishing value chain experiences congestion due to the absence of alternative channels for fishers to directly sell their catch, hence relying solely on intermediaries. It also found that fishers have a heightened vulnerability as they lack the capacity to negotiate seafood pricing. Currently, the Sangihe local administration is taking steps to implement the direct export of fishing products. The General Santos Fish Port Complex authority and other fishing firms in General Santos have responded favourably to this initiative. These initiates suggest that the outermost regions of Indonesia should be capable of influencing its geographical proximity to export destination countries for fostering economic development within the region.

Enrichment of Artemia Nauplii With Bacteria Grown in High C/N Ratio, Carbon Source-Microalgae Media

JAYANTHI CHANDANI MALLAWAARACHCHI, FATIMAH MD YUSOFF, YAM SIM KHAW, ZARIRAH BINTI MOHAMED ZULPERI, INA SALWANY MD YASIN

https://doi.org/10.33997/j.afs.2024.37.2.004

The microalgae-bacteria interaction in enriched culture media could affect the growth and nutritional properties of Artemia. The addition of carbon sources to the media improves the heterotrophic bacterial population, which in turn interacts with microalgae to improve the health and production of Artemia. The aim of this study was to assess the impacts of the microbial consortium developed with different fermented carbon sources and microalgae on Artemia. Three different microalgae, Chlorella sp., Nannochloropsis oceanica and Chaetoceros calcitrans were mixed with three fermented carbon sources (rice bran, tapioca flour and molasses) to produce nine treatments and three controls with microalgae alone. Enrichment was carried out for 24 h with Artemia instar I. Two-way ANOVA revealed that the survival, length, protein and lipid contents of Artemia nauplii were significantly affected by carbon source and species of microalgae. The carbon source–microalgae interaction also significantly affects Artemia survival, length, biomass and protein content. This study illustrated that bacteria associated with different carbon sources and microalgae consortia improved Artemia growth, survival, protein and lipid content.

Snakehead Fish, Channa striata (Bloch, 1973), Protein Concentrate: Excellent Recovery of Fish-Based Albumin Source and Its Possible Application for Sperm Capacitation

HARIS SETIAWAN, MONTIRA INTANON, PHONGSAKORN CHUMMITRI, KORAWAN SRINGARM, ANUCHA SATHANAWONGS

https://doi.org/10.33997/j.afs.2024.37.2.005

Snakehead fish protein concentrate (SFC) shows promising recovery of excellent protein content that has broad potential applications, including the future use of its albumin content as a sperm capacitation promoter. However, the quantity of snakehead fish albumin recovered depends on several variables, including the habitat in which the fish thrives, extraction procedures, and the assay employed. To optimise the albumin content retrieved from snakehead fish flesh with more reliable results, multiple protein extraction methods were undertaken through the protein concentrate preparation and analysed using the Bromocresol purple (BCP) albumin assay. Although this exploratory work requires additional analysis and purification steps, further research employing the SFC is worth identifying its ability and how this alternative albumin source can replace serum albumin to modulate the capacitation process in mammalian sperm.

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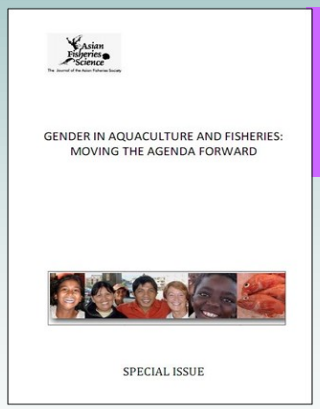

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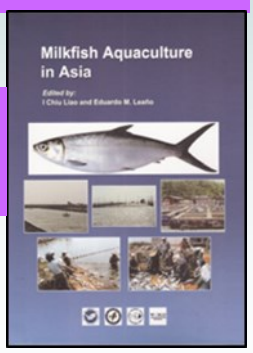
Gender in Aquaculture and Fisheries: Moving the Agenda Forward
MERYL J WILLIAMS, MARILYN PORTER, POH SZE CHOO, KYOKO KUSAKABE, VEIKILA VUKI,



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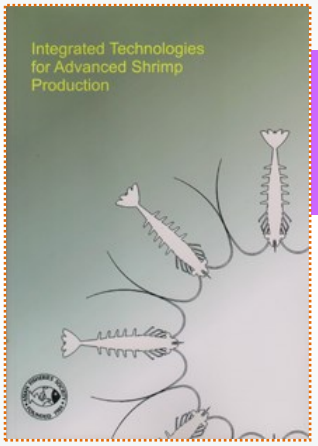
Milkfish Aquaculture in Asia



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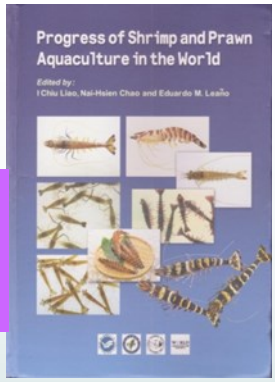
Integrated Technologies for Advanced Shrimp Production



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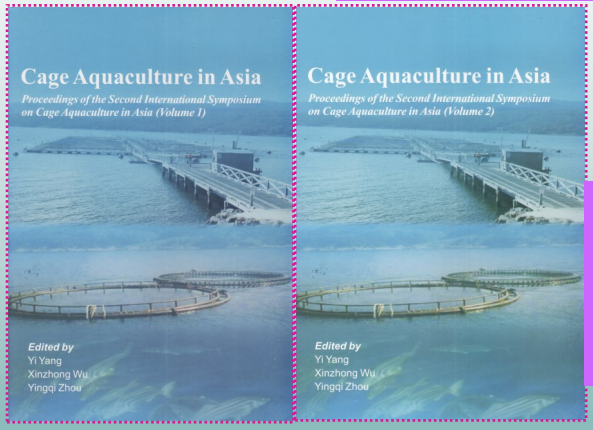
Progress Of Shrimp and Prawn Aquaculture in the world



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