

ASIAN PACIFIC AQUACULTURE 2019

Aquaculture for Health, Wealth and Happiness

June 19 -21, 2019

Chennai Trade Center

Chennai

Tamil Nadu - India

This event includes:

- Asian Pacific Aquaculture 2019
- ISTA 2019
- SAP Industry Session



Hosted by: Tamil Nadu Dr.J.Jayalalithaa Fisheries University

Organized by: World Aquaculture Society - Asian Pacific Chapter



**WORLD
AQUACULTURE
Society**



Gold sponsor



Silver sponsor



Conference sponsor



WAS premier sponsor



Industry sponsor



ASIAN PACIFIC AQUACULTURE 2019

Thanks to the involvement of many associated Institutes, APA19 conference will show and discuss all aspects of Aquaculture (see topics right). This will result in a high quality conference. Associated institutes:

AFS-Asian Fisheries Society
AFS-Asian Fisheries Society-Indian Branch
ICAR -Indian Council of Agricultural Research with:
Central Institutes
CIFE-Central Institute of Fisheries Education
CIFRI-Central Inland Fisheries Research Institute
CIBA-Central Institute of Brackishwater Aquaculture
CIFA-Central Institute of Freshwater Aquaculture
CMFRI-Central Marine Fisheries Research Institute
DCFR-Directorate of Cold water Fisheries Research
NBFGR-National Bureau of Fish Genetic Resources
NFDB-National Fisheries Development Board
MPEDA-Marine Product Export Development Authority
NABARD-National Bank for Agriculture and Rural
Development
SIFA-Society for Indian Fisheries and Aquaculture
Professionals

Also many universities and colleges are involved in the program
Fisheries Colleges
Kerala University of Fisheries and Ocean Studies
College of Fisheries,Mangalore
College of Fisheries,Lembucherra,Tripura
College of Fisheries,Nellore,Andhrapradesh



TECHNICAL PROGRAM COVERS THE LATEST RESEARCH

Sessions and workshops at Asian-Pacific Aquaculture 2019 will cover all aspects of aquaculture in India as well as Southeast Asia. Sample topics will include:

TENTATIVE SESSIONS

| | |
|--|---|
| Feed, Nutrition & physiology Larval Feed Grow out Feed Broodstock Nutrition Alternative Feed Ingredients Feed Technology Microalgae & Live Feed Feed quality & Safety Functional feed ingredients Nutritional physiology | Economics, Marketing, Trade & Policy Aquaculture Economics Aquaculture Finance Domestic Marketing Export Marketing & International trade Trade Issues & redressal Policy |
| Genetics & Reproduction Genetic improvement Conservation genetics Reproductive physiology Shrimp Genetics | Human Resource Development Aquaculture Education Training & Skill development Employability & Employment Biostatistics, ICT & Bioinformatics |
| Aquatic Animal Health Disease Diagnosis & Management Epidemiology Immunology Pharmacology Alternative Medicines Diagnostics Vaccines Prebiotics & Probiotics Quarantine & Certification AMR Disease Management in Shrimp culture | Aquaculture Engineering Farm Designs & Construction Hatchery Designs & Construction Water & Energy Budgeting Farm Mechanization Farm Automation - Sensors, Robotics Green Energy |
| Biotechnology, Nanotechnology & Omics in Aquaculture Biotechnology Nanotechnology Tissue culture, Cell line and stem cells Cryopreservation Genomics & Transcriptomics Proteomics Metabolomics Metagenomes | Freshwater Aquaculture Carps, Barbs & Other Cyprinids Catfishes Other Finfishes Freshwater Crustaceans-Prawn, Crayfish etc Bivalves & Gastropods Cage & Pen Culture Integrated Aquaculture Cold water fish culture Tilapia Small indigenous fish : Ompak, Pengba, Murrels, milkfish |
| Environmental Management Quality Management Environmental Issues & Management Biodiversity Climate Change Waste management & Bioremediation Disaster Management | Brackishwater Aquaculture Shrimp Culture Crabs & Other Crustaceans Finfish Culture Inland Saline Aquaculture Arid land Aquaculture |
| Sustainability, Livelihood & Nutritional Security Scientist-Farmer Linkages Gender in Aquaculture Livelihood Aquaculture Entrepreneurship development Farmers Income & Welfare Fish in Women & Child Nutrition Indigenous Technical Knowledge | Mariculture Open - Sea Cage Culture Mollusc Culture Seaweed Culture Culture of Other Marine Animals Integrated Multitrophic Aquaculture Systems |
| Processing and Value Addition Post Harvest Processing Product development & Value addition Process Engineering | Ornamental Fish Culture Breeding and Culture of Freshwater Ornamentals Breeding and Culture of Marine Ornamentals Aquatic plants Aquarium Design & Management |
| Food quality & Safety Food Hygiene-HACCP & GMP Food Safety Standards Product Certification Policy, Regulations & Governance Emerging Issues in Standards Promotion and consumption of seafood | Innovative Aquaculture Systems and Practices RAS & Flow through systems Biofloc based culture Systems Aquaponics Mixotrophic Culture Systems Super intensive Culture Systems |
| | Seed production of freshwater finfishes & Shellfishes Broodstock development & Management Induced Breeding & hatchery Management of finfishes Induced Breeding & hatchery Management of shellfishes Larval rearing & seed production |
| | Seed production of Brackishwater & Marine finfishes & Shellfishes Broodstock development & Management Induced Breeding & hatchery Management of finfishes Induced Breeding & hatchery Management of shellfishes Larval rearing & seed production |

Stay in touch with the program developments for
ASIAN-PACIFIC AQUACULTURE 2019
through our Web Page at: <http://www.was.org>

YOUR FULL CONFERENCE REGISTRATION INCLUDES:

- ◆ Only pre-registered attendees are guaranteed materials
- ◆ Admission to all sessions, seminars and the trade show.
- ◆ Admission to the Reception.
- ◆ Conference bag and Show Directory (except for spouse)
- ◆ Refreshment Breaks and Cash Bar Happy Hour
- ◆ Students receive the full registration package plus the Student Reception. To qualify for the student rate, a copy of your student I.D. is required.

REGISTER EARLY AND \$SAVE!

CALL FOR PAPERS

DEADLINE: January 31, 2019

ASIAN-PACIFIC AQUACULTURE 2019 encourages the submission of high quality oral and poster presentations. We strongly encourage authors to consider poster presentations because poster sessions will be an integral part of the program. Papers submitted for "oral presentation only" may not be accepted as oral presentations due to the limited number of available time slots. **All abstracts must be in English - the official language of the conference.**

Each oral presenter shall be entitled to no more than 15 minutes for a presentation, plus 5 minutes for questions. Authors of studies involving proprietary products or formulations should present this information in workshops or the trade show. Oral presentations should use Power Point. Overhead and slide projectors and video players will not be available or allowed.

All presenters are required to pay their own registration, accommodation and travel expenses. ASIAN-PACIFIC AQUACULTURE 2019 cannot subsidize registration fees, travel or hotel costs.

We will have the ABSTRACT APP and the abstracts online.

INSTRUCTIONS FOR PREPARATION OF ABSTRACTS

Expanded Abstract Format - Please refer to the sample.

- 1. TITLE OF PAPER:** The paper title is printed in CAPITAL LETTERS, with the exception of scientific names which should be Upper/lower case and italicized (see sample). Scientific names should not be preceded or followed by commas or parentheses or other markings.
- 2. AUTHOR(S):** The first name should be the presenting author. Use * after the presenting author. Type in upper/lower case.
- 3. ADDRESS AND EMAIL:** Type only the presenting author's institution, address and email. Type in upper/lower case.
- 4. MAXIMUM LENGTH:** One Page
- 5. PAGE SIZE:** Standard A4 paper (210mm x 297mm = 8.27" x 11.69")(portrait)
- 6. MARGINS:** 1-inch margin throughout (left/right/top/bottom)
- 7. SPACING:** Single spaced
- 8. PARAGRAPHS:** Paragraphs should be separated by a blank line and should not be indented.
- 9. FONTS:** Character fonts should be 12 point type.
- 10. PHOTOS, FIGURES & TABLES:** Photo, figures and tables are highly recommended and they may be in color. They should be reduced to the appropriate size to fit a one page abstract and should be clearly readable at the reduced size. The reduced figures and tables should be included in the abstract.

2.5 cm margin

EVALUATION OF JUVENILE AUSTRALIAN RED CLAW CRAYFISH *Cherax quadricarinatus* FED PRACTICAL DIETS WITH AND WITHOUT SUPPLEMENTAL LECITHIN AND/OR CHOLESTEROL

Laura A. Muzinic*, Kenneth R. Thompson, Tracey Christian, Carl D. Webster, Lukas Manomaitis, and David B. Rouse

Aquaculture Research Center
Kentucky State University
Frankfort, KY 40601
lmuzinic@dcu.net

Red claw crayfish (*Cherax quadricarinatus*) are one of more than a hundred species of Australian freshwater crayfish. However, because of its rapid growth rate, ease of spawning, wide temperature range and dissolved oxygen tolerance, and lack of a larval stage, red claw may be the best candidate for aquaculture in the United States. Red claw are only being investigated as an aquaculture species in this country because very little information exists on their nutritional requirements and practical diet formulations. Since many crustaceans require lecithin and cholesterol to be added to their diet, these two nutrients are usually added; however, lecithin and cholesterol are very expensive. Since diet costs can be as much as 10% of the total expenses for an aquaculture enterprise, it is imperative that the least expensive diet be formulated that meets the nutrient requirements of the species. The present study was conducted to determine if cholesterol and/or lecithin needs to be added to a practical diet for red claw crayfish.

An 8-week feeding trial was conducted in a recirculating system with newly-hatched juvenile (red claw) of weight of 0.2 g red claw, each stocked in individual plastic mesh culture units. Individual units were placed within fiberglass tanks, each connected to a central water line. Water was recirculated through biological and mechanical filters. Water temperature was maintained at 27-29°C and light was provided by overhead fluorescent ceiling lights on a 14-hour light:dark cycle. Ammonia, nitrite, nitrate, dissolved oxygen, temperature, alkalinity, chlorides, and pH were measured three times per week. The goal of the study was to examine the effects of growth performance of newly-hatched juvenile red claw when fed four practical diets with or without cholesterol and lecithin. Other practical diets included menhaden fish meal, soybean meal, shrimp meal, wheat flour, vitamin and mineral mix, pellet binder, cod liver oil, and corn oil (Table 1).

After 8 weeks, red claw crayfish fed a practical diet without cholesterol (Diet 3) had significantly ($P < 0.05$) lower final weight, percentage weight gain, and specific growth rate (SGR) compared to crayfish fed all other diets (Table 2). These results indicate that a practical diet containing 2% cod liver oil and 1% corn oil and having no lecithin appears to be sufficient and that lecithin may not be necessary for juvenile red claw diets.

2.5 cm margin

29.7 cm long

2.5 cm margin

2.5 cm margin

21 cm wide

| | Diet | | | |
|--------------|------|------|------|------|
| | 1 | 2 | 3 | 4 |
| Menhaden FM | 25.0 | 25.0 | 25.0 | 25.0 |
| Soybean Meal | 35.0 | 35.0 | 35.0 | 44.5 |
| Lecithin 0.5 | 0.0 | 0.5 | 0.0 | |
| Cholesterol | 1.0 | 1.0 | 0.0 | 0.0 |
| Other | 38.5 | 39.0 | 39.5 | 30.5 |

| | Diet | | | |
|------------------|-------|-------|-------|-------|
| | 1 | 2 | 3 | 4 |
| Final weight (g) | 6.97a | 6.00a | 3.64b | 5.11a |
| Weight gain (%) | 3384a | 2897a | 1717b | 2454a |
| SGR (%/day) | 5.74a | 5.66a | 4.68b | 5.41a |
| Survival (%) | 76.0 | 64.0 | 56.0 | 80.0 |

PLEASE SUBMIT YOUR ABSTRACT ONLINE

www.was.org



ASIAN-PACIFIC AQUACULTURE 2019

June 19-21, 2019

Register online at: www.was.org

Return address for payments in USD:
Conference Manager
P.O. Box 2302
Valley Center, CA 92082 USA
Tel: +1 760 751 5005
Fax: +1 760 751 5003
Email: worldaqua@was.org

Online registration is preferred at www.was.org OR fax or mail both sides with payment. Use one form per person.

PLEASE PRINT CLEARLY OR TYPE ALL REQUESTED INFORMATION

BADGE INFORMATION: (As you want your name badge to read – No titles, please)

First Name _____ SURNAME (FAMILY NAME) _____

Company or Institution _____
(Limited to 40 Letters & Spaces)

City _____ State/Prov _____ Country _____

MAILING INFORMATION: Email _____
(please include email address)

Postal Address _____

City _____ State / Prov _____ Postal Code _____ Country _____

Phone _____ Fax _____ Title: (circle one) Dr. Mr. Ms. Mrs.
(Include country and city code) (Include country and city code)

REGISTRATION FEES: In order to receive the discount rates as listed below, this form and payment must be received by the date listed. See brochure for what is included in registration fees.

| TYPE OF REGISTRATION | Register by February 15, 2019 | Register by April 4, 2019 | Register after April 4, 2019 | * To qualify for Member Rate you must complete the Association Memberships section on the reverse side. • • • • • Trade Show is <u>included</u> in the Full Conference Registration Rate. TOTAL REGISTRATION FEE US\$ _____ |
|---|-----------------------------------|-----------------------------------|-----------------------------------|--|
| FULL CONFERENCE & TRADE SHOW In order to receive the Pre-Registration discount rate, this form and payment must be received by the date above | | | | |
| WAS/CHAPTER MEMBER RATE* <input type="checkbox"/> | <input type="checkbox"/> US\$ 375 | <input type="checkbox"/> US\$ 445 | <input type="checkbox"/> US\$ 545 | |
| WAS/CHAPTER STUDENT MEMBER RATE* Include copy of Student I.D. | <input type="checkbox"/> US\$ 195 | <input type="checkbox"/> US\$ 195 | <input type="checkbox"/> US\$ 250 | |
| AFFILIATE MEMBER RATE* <input type="checkbox"/> | <input type="checkbox"/> US\$ 445 | <input type="checkbox"/> US\$ 515 | <input type="checkbox"/> US\$ 615 | |
| AFFILIATE STUDENT MEMBER RATE* Include copy of Student I.D. | <input type="checkbox"/> US\$ 245 | <input type="checkbox"/> US\$ 245 | <input type="checkbox"/> US\$ 300 | |
| Non-Member Rate <input type="checkbox"/> | <input type="checkbox"/> US\$ 475 | <input type="checkbox"/> US\$ 575 | <input type="checkbox"/> US\$ 675 | |
| Student Non-Member Rate Include copy of Student I.D. <i>You can join WAS on the reverse side and use the Member Rate.</i> | <input type="checkbox"/> US\$ 265 | <input type="checkbox"/> US\$ 265 | <input type="checkbox"/> US\$ 295 | |
| <input type="checkbox"/> Spouse Rate – must accompany a full registration Name _____ | <input type="checkbox"/> US\$ 305 | <input type="checkbox"/> US\$ 395 | <input type="checkbox"/> US\$ 495 | |
| TRADE SHOW PASS – Good for 3 days admission to exhibits only – June 19, 20, 21 (Trade show pass is included with the Full Conference Registration) <input type="checkbox"/> US\$ 30 TOTAL TRADE SHOW PASS US\$ _____ | | | | |
| FARM TOURS – June 18 – Tour 1 <input type="checkbox"/> June 22 – Tour 2 <input type="checkbox"/> US\$ 100 TOTAL FARM TOUR US\$ _____ | | | | |
| TOURIST EXCURSIONS – info soon on www.was.org | | | | |
| MEMBERSHIP DUES – Enter amount from Membership Application on other side if applicable. TOTAL MEMBERSHIP DUES US\$ _____ | | | | |
| Do not mail registration after March 30, 2019 or fax after April 10, 2019. After April 10, 2019, bring this form with you to register at the show. ➔ TOTAL AMOUNT US\$ _____ | | | | |

REGISTRATION CONFIRMATION AND RECEIPT WILL BE EMAILED AFTER PROCESSING.

CANCELLATION POLICY: Cancellation of registration must be received - in writing - no later than March 15, 2019. Refunds for registration fees will be subject to a 20% handling fee. Refunds are processed after the conference. No refund will be made for cancellations received after March 15, 2019 or for "no shows". After March 15, 2019, no refunds will be made for professional or personal emergencies, flight cancellations, denied visa, weather related cancellation or other travel emergencies. Fees for memberships are non-refundable.

PAYMENT METHOD: All fees must be paid to the order of Asian-Pacific Aquaculture 2019 without charges for the beneficiary.

☐ Cheque No. _____

☐ Visa ☐ Mastercard ☐ Access ☐ Diners ☐ American Express Name on Card _____

Card # _____ Expiration Date _____ Sec Code _____

For bank transfer details, contact us. Date _____ Signature _____

Return address for payments in USD:

WAS Conference Office - ASIAN-PACIFIC AQUACULTURE 2019

P.O. Box 2302 Valley Center, CA 92082 USA / Tel: +1 760 751 5005 Fax: +1 760 751 5003 Email: worldaqua@was.org

REGISTRATION FORM - SIDE 2

Name _____

ASSOCIATION MEMBERSHIPS: Please check all boxes for associations for which you are a current member. Membership in any of those associations qualifies you for the Member Rate* on the Registration Fees. You can join an association at any time before registering to qualify for the Member Rate.

MEMBERSHIPS: ☐ WAS ☐ USAS ☐ APC ☐ Korean ☐ LACC

AFFILIATE MEMBERSHIPS:

- | | |
|--|--|
| <input type="checkbox"/> AQUABIO | <input type="checkbox"/> Indonesian Aquaculture Society |
| <input type="checkbox"/> Aquaculture Association of Canada | <input type="checkbox"/> Korean Aquaculture Society |
| <input type="checkbox"/> Aquaculture Association of South Africa | <input type="checkbox"/> Korean Society of Fisheries and Sciences (KOSFAS) |
| <input type="checkbox"/> Aquaculture Without Frontiers | <input type="checkbox"/> Malaysian Fisheries Society |
| <input type="checkbox"/> Asian Fisheries Society | <input type="checkbox"/> Sociedad Brasileira de Acuicultura |
| <input type="checkbox"/> China Society of Fisheries | <input type="checkbox"/> Society of Aquaculture Professionals (India) |
| <input type="checkbox"/> Egyptian Aquaculture Society | <input type="checkbox"/> South African Aquaculture Society |
| <input type="checkbox"/> European Aquaculture Society | <input type="checkbox"/> Spanish Aquaculture Association (SEA) |
| <input type="checkbox"/> Global Aquaculture Alliance | |
| <input type="checkbox"/> IAFI The International Association of Seafood Professionals | |

MEMBERSHIP APPLICATIONS ☐ NEW APPLICATION ☐ RENEWAL

WORLD AQUACULTURE SOCIETY (WAS) APPLICATION

www.was.org

For details on the different types of memberships and options, please contact the WAS home office at

Tel: +1-225-347-5408 Fax: +1-225-347-5408 Email: judya@was.org

MEMBERSHIP CATEGORY: (Indicate only one)

- ☐ **Individual** (Electronic JWAS) (USD 65/yr) Applies to an individual only
- ☐ **Individual** (Printed JWAS) (USD 110/yr) Applies to an individual only
- ☐ **Student** (Electronic JWAS) (USD 45/yr) (Copy of Student ID or Signature of Professor required)
- ☐ **Student** (Printed JWAS) (USD 90/yr) (Copy of Student ID or Signature of Professor required)
- ☐ **Sustaining** (Electronic JWAS) (USD 105/yr) Applies to any one individual from a company
- ☐ **Sustaining** (Printed JWAS) (USD 150/yr) Applies to any one individual from a company
- ☐ **Corporate** (Electronic JWAS) (USD 255/yr) Allows all employees of one company to attend meeting at Member Rate
- ☐ **Corporate** (Printed JWAS) (USD 300/yr) Allows all employees of one company to attend meeting at Member Rate
- ☐ **Lifetime** (Electronic JWAS only) (USD 1005/yr) Applies to an individual only

CHAPTER OPTIONS:

One chapter included in membership. Mark the chapter you choose.

- ☐ **Asian Pacific**
- ☐ **Korea**
- ☐ **Latin American/Caribbean**
- ☐ **United States (USAS)**
- ☐ **None** (deduct USD 5)

You can add extra Chapters for USD 5

Total Amount for WAS Membership USD _____

Fees for memberships are non-refundable.

Please enter this amount under "Membership Dues" section on opposite side of this form.

For membership in other associations, please contact them directly.

If you need a phone number, contact the Conference Manager (+1-760-751-5005).



MANY OPPORTUNITIES FOR FARM TOURS

A number of tours will be organized. The details will be on the WAS website as they become ready.

HOTEL

Feathers – A Radha Hotel
4/129 Mount Poonamallee Road
Manappakkam
Chennai – 600089
044 6677 6969 | 044 6677 6900 | 1800 419
1419 | info@radhahotels.com
Find out more at: www.was.org

TOURIST EXCURSIONS

There are many wonderful places to visit in India and things to do. The details and reservation contact information will be available soon on the WAS website.

MEDIA PARTNERS

Farmhub
Aquaculture Asia Pacific
International Aquafeed
Aqua Star
Efeedlink
Intrafish
Academic Journals
Aquafeed
Hatchery Fee

FOR MORE INFORMATION:

Asian-Pacific Aquaculture 2019
Conference Manager
P.O. Box 2302
Valley Center, CA 92082 USA
Questions:?
Tel: +1-760-751-5005
Email: worldaqua@was.org

For Trade Show and Sponsorship Information contact:

mario@marevent.com

TENTATIVE SCHEDULE

TUESDAY, JUNE 18

| | |
|-------------------------|--------------------|
| Bag Stuffing | 7:00 am - 11:00 am |
| Registration Open | Noon - 6:30 pm |
| Exhibitor Move-in | Noon - 6:00 pm |
| Poster Set-up | 1:00 pm - 5:30 pm |

WEDNESDAY, JUNE 19

| | |
|-----------------------------------|---------------------|
| Registration Open | 7:30 am - 5:00 pm |
| Plenary Session | 9:00 am - 10:00 am |
| Opening ceremony | 10:00 am - 10:30 am |
| Opening exhibition..... | 10:30 am |
| Exhibitor Move-in..... | 8:00 am - 10:00 am |
| Poster Set-up | 8:00 am - 10:00 am |
| Refreshment Break..... | 10:30 am - 11:00 am |
| Trade Show & Posters Open..... | 10:00 am - 6:30 pm |
| Sessions | 11:00 am - 12:40 pm |
| Lunch | 12:40 pm - 1:40 pm |
| Sessions | 1:40 pm - 3:40 pm |
| Refreshment Break..... | 3:40 pm - 4:00 pm |
| Sessions | 4:00 pm - 5:40 pm |
| Happy Hour & Poster Session | 5:40 pm - 6:30 pm |
| Student Forum..... | 5:40 pm - 7:00 pm |

THURSDAY, JUNE 20

| | |
|--------------------------------|---------------------|
| Registration Open | 7:30 am - 5:00 pm |
| Sessions | 9:00 am - 10:40 am |
| Refreshment Break..... | 10:40 am - 11:00 am |
| Trade Show & Posters Open..... | 10:00 am - 6:30 pm |
| Sessions | 11:00 am - 12:40 pm |
| Lunch | 12:40 pm - 1:40 pm |
| Sessions | 1:40 pm - 3:40 pm |
| Refreshment Break..... | 3:40 pm - 4:00 pm |
| Sessions | 4:00 pm - 5:40 pm |
| WAS-APC Members meeting | 5:40 pm - 6:40 pm |

FRIDAY, JUNE 21

| | |
|--------------------------------|---------------------|
| Registration Open | 7:30 am - 5:00 pm |
| Sessions | 9:00 am - 10:40 am |
| Refreshment Break..... | 10:40 am - 11:00 am |
| Trade Show & Posters Open..... | 10:00 am - 4:00 pm |
| Sessions | 11:00 am - 12:40 pm |
| Lunch | 12:40 pm - 1:40 pm |
| Sessions | 1:40 pm - 3:40 pm |
| Refreshment Break..... | 3:40 pm - 4:00 pm |
| Sessions | 4:00 pm - 5:20 pm |

