

APA 18

ASIAN-PACIFIC AQUACULTURE 2018

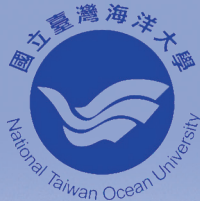
Innovation For Aquaculture Sustainability and Food Safety

Taipei International Convention Center

April 23-26, 2018 • Taipei, Taiwan

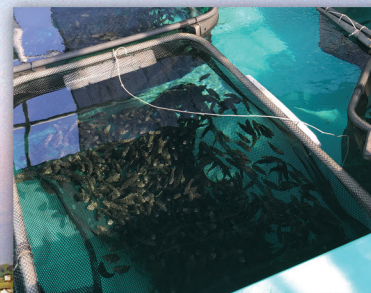
Organized by: World Aquaculture Society - Asian Pacific Chapter

Hosted by: National Taiwan Ocean University



WORLD
AQUACULTURE
Society

Conference Sponsors



ASIAN PACIFIC AQUACULTURE 2018

Asian-Pacific Aquaculture 2018 is the place to learn about the latest in aquaculture, see the newest technology in the trade show with exhibits from around the world and enjoy the many tourist sights in Taiwan.

APA 2018 - VISIT THE MAJOR EXHIBITION

APA 2018 will have a large exhibition featuring international companies showcasing the latest in products, services and all aquaculture related information. Don't miss this opportunity to see the items that will enhance your aquaculture operation.

SPECIAL PRODUCER SESSIONS

APA 2018 will have special sessions to address the everyday practical concerns and needs of aquaculture farmers. Specific information will be provided on current problems farmers are facing. Check online for more details.



LATEST RESEARCH

Sessions and workshops at Asian-Pacific Aquaculture 2018 will cover all aspects of aquaculture in Taiwan as well as Southeast Asia. Sample topics will include:

TENTATIVE SESSIONS

Grouper

- Breeding and Genetics
- Nutrition
- Disease and Health Management

Ornamentals

- Breeding and Genetics
- New Strains
- Transport Technology

Seaweeds and Algae

- Production
- Processing

Marine and Freshwater Fish Culture

- Carps
- Tilapia
- Milkfish
- Eels, Trouts, Sturgeons and other
- Tuna, cobia and yellowtails
- Snappers
- Salmonids
- Mullets
- Other marine fish

Molluscs & Crustaceans

- Abalone
- Mussel
- Oyster
- White shrimp
- Crabs and Lobsters

Ecology & Environment

- Environment, Biodiversity and Climate Change
- Sustainable development of aquaculture
- Aquaculture standards & certification

Production System

- Aquafeeds
- Cage-culture
- Recirculation systems
- Processing (Value-added)
- Technology and Equipment
- Polyculture
- Aquaponics

Food Safety

- Policy & regulations
- Inspection
- Good Agricultural Practice

Other Topics

- Aquatic Animal Health
- Aquaculture economics & Management
- Development, welfare and poverty
- Marketing & Trade
- Policy & regulations
- Education, extension, and technology transfer
- Emerging issues in aquaculture
- Development
- Chinese Session(Fisherman's day)

Plenary Topics

- Taiwan Aquaculture Trends and Prospects
- Biotechnology application in Aquaculture Industry

Stay in touch with the program developments for
ASIAN-PACIFIC AQUACULTURE 2018
through our Web Page at: <http://www.was.org>



CALL FOR PAPERS

DEADLINE: January 31, 2018

ASIAN-PACIFIC AQUACULTURE 2018 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 2018 cannot subsidize registration fees, travel or hotel costs.

No Abstract Book will be printed - a USB will be given to registered attendees.

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

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Kentucky State University
Frankfort, KY 40601
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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 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 included; however, lecithin and cholesterol are very expensive. Since diet costs can be as much as 20% of the total rearing expenses for an aquaculture enterprise, it is imperative that the least expensive diet formulation 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 rainbow trout (average weight of 0.2 g) red claw, each stocked in 100-l plastic mesh culture units. Individual units were placed within fiberglass tanks, each containing an internal 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 14L:10D light-dark cycle. Ammonia, nitrite, nitrate, dissolved oxygen, temperature, alkalinity, chlorides, and pH were measured three times per week. The goal of this 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.

TABLE 1. Formulation of experimental diets fed to red claw crayfish.

	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

TABLE 2. Final weight, percentage weight gain, specific growth rate (SGR), and percentage survival of red claw crayfish fed four practical diets. Means in a column with different letters were significantly different ($P < 0.05$)

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

2.5 cm margin

21 cm wide

PLEASE SUBMIT YOUR ABSTRACT ONLINE

www.was.org



ASIAN-PACIFIC AQUACULTURE 2018

April 23-26, 2018

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, 2018	Register by April 4, 2018	Register after April 4, 2018	*
FULL CONFERENCE & TRADE SHOW <small>In order to receive the Pre-Registration discount rate, this form and payment must be received by the date above</small>				To qualify for Member Rate you <u>must</u> complete the Association Memberships section on the reverse side. ● ● ● ● ● ● ● ● ● ● Trade Show is <u>included</u> in the Full Conference Registration Rate.
WAS/CHAPTER MEMBER RATE*	<input type="checkbox"/> US\$ 375	<input type="checkbox"/> US\$ 445	<input type="checkbox"/> US\$ 545	
WAS/CHAPTER STUDENT MEMBER RATE* <small>Include copy of Student I.D.</small>	<input type="checkbox"/> US\$ 195	<input type="checkbox"/> US\$ 195	<input type="checkbox"/> US\$ 250	
AFFILIATE MEMBER RATE*	<input type="checkbox"/> US\$ 445	<input type="checkbox"/> US\$ 515	<input type="checkbox"/> US\$ 615	
AFFILIATE STUDENT MEMBER RATE* <small>Include copy of Student I.D.</small>	<input type="checkbox"/> US\$ 245	<input type="checkbox"/> US\$ 245	<input type="checkbox"/> US\$ 300	TOTAL REGISTRATION FEE US\$ _____
Non-Member Rate	<input type="checkbox"/> US\$ 475	<input type="checkbox"/> US\$ 575	<input type="checkbox"/> US\$ 675	
Student Non-Member Rate <small>Include copy of Student I.D. You can join WAS on the reverse side and use the Member Rate.</small>	<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 – April 24, 25, 26 (Trade show pass is included with the Full Conference Registration)
☐ US\$ 30 **TOTAL TRADE SHOW PASS** US\$ _____

FARM TOURS – Marine Fish & Shrimp Farms Friday, April 27 0800 – 1900h – Tour 1 ☐ Tour 2 ☐ 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, 2018 or fax after April 10, 2018.
After April 10, 2018, 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, 2018. 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, 2018 or for "no shows". After March 15, 2018, 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 2018 without charges for the beneficiary.

☐ Cheque No. _____

☐ Visa ☐ Mastercard ☐ Access ☐ Diners ☐ American Express

Card # _____ Expiration Date _____ Name on Card _____

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

Return address for payments in USD:

WAS Conference Office - ASIAN-PACIFIC AQUACULTURE 2018

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: +1-225-578-3137 Fax: +1-225-578-3493 Email: judya@was.org

MEMBERSHIP CATEGORY: (Indicate only one)

- ☐ **Individual** (Electronic JWAS) (USD 65/yr) Applies to an individual only
- ☐ **Individual** (Printed JWAS) (USD 85/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 65/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 125/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 275/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

Fees for memberships are non-refundable.

Total Amount for WAS Membership USD _____
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

The National Taiwan Ocean University will organize a number of tours throughout Taiwan. The details will be on the WAS website as they become ready.

HOTEL

For hotel information see www.was.org

TOURIST EXCURSIONS

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



FOR MORE INFORMATION:

Asian-Pacific Aquaculture 2018

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

MONDAY, APRIL 23

Registration Open	Noon - 18:30
Poster Set-up	13:00 - 17:30
WAS-APC Board	16:00 - 17:30
Welcome Reception	19:00 - 21:30

TUESDAY, APRIL 24

Registration Open	7:30 - 5:00
Plenary Session	8:30 - 10:00
Poster Set-up	8:00 - 10:00
Refreshment Break.....	10:00 - 10:40
Trade Show & Posters Open.....	10:00 - 6:30
Sessions	10:40 - 12:20
Lunch (On your own).....	12:20 - 13:50
Sessions	13:50 - 15:30
Refreshment Break.....	15:30 - 16:00
Sessions	16:00 - 17:20
Happy Hour & Poster Session	17:20 - 18:30
Student Forum.....	19:30 - 21:00

WEDNESDAY, APRIL 25

Registration Open	7:30 - 17:00
Sessions	8:30 - 10:10
Refreshment Break.....	10:10 - 10:40
Trade Show & Posters Open	10:00 - 17:30
Sessions	10:40 - 12:20
Lunch (On your own).....	12:20 - 13:50
Sessions	13:50 - 15:30
Refreshment Break.....	15:30 - 16:00
Sessions	16:00 - 17:20
WAS-APC Members Meeting.....	17:30 - 18:30
Reception	19:30 - 21:30

THURSDAY, APRIL 26

Registration Open	7:30 - 17:00
Sessions	8:30 - 10:10
Refreshment Break.....	10:10 - 10:40
Sessions	8:30 - 10:10
Refreshment Break.....	10:10 - 10:40
Trade Show & Posters Open	10:00 - 16:00
Sessions	10:40 - 12:20
Lunch (On your own).....	12:20 - 13:50
Sessions	13:50 - 15:30
Refreshment Break.....	15:30 - 16:00
Sessions	16:00 - 17:20
Closing Happy Hour	17:20 - 18:30

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, Abstract USB 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 \$AVE!