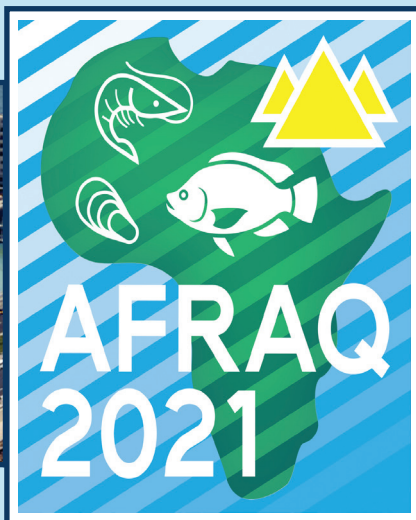


NEW
DATES



Sustainable Aquaculture – Feeding Africa

AQUACULTURE AFRICA 2021

Alexandria Egypt • March 25 - 28, 2022



The 1st Annual International Conference & Exposition of the African Chapter of the World Aquaculture Society (AFRAQ2021)

Egypt is the biggest aquaculture producer in the continent. Both local and international aquaculture delegates will converge for the event at the beautiful City of Alexandria, the Pride of the Mediterranean Sea.



Chapter Founding Gold Sponsor
and
AFRAQ 2020 Gold Sponsor



Hosted by



Silver Sponsor



WAS Premier Sponsors



Conference Sponsor
Egyptian Aquaculture Society (EgAS)





Conference Venue

The venue will be the famous Bibliotheca Alexandrina, one of the most fascinating touristic and cultural attractions in the world. The conference offers a great opportunity for aquaculture researchers, practitioners, decision makers and other stake holders to meet, network and discuss all aspects of aquaculture in Africa. Exhibitors from all over the globe are expected to exhibit their products in the amazing exhibition Center. Visits to the most famous touristic attractions in Egypt will be arranged. Special excursionary visits will also be arranged to nearby fish farms, fish feed mills and local research facilities. Be sure to schedule time for this unique scientific, business and social event.

AFRAQ2021 Programme Themes

AFRAQ2021 technical program will aim to cover developmental issues including latest research on aquaculture in Africa. The thematic plenary and technical parallel sessions will comprise submitted oral and poster presentations. AFRAQ2021 will feature an international trade exhibition, industry forums, student sessions and activities, satellite workshops (and training sessions) and various meetings/forums on aquaculture development in Egypt and Africa. The theme for this inaugural event will be "Sustainable Aquaculture - Feeding Africa".

Sample topics will include: (This is an initial theme list, subject to change)

- | | |
|--|------------------------------------|
| ▪ Feed, Nutrition & Physiology | ▪ Food Quality & Safety |
| ▪ Genetics & Reproduction | ▪ Aquaculture Investment issues |
| ▪ Aquatic Animal Health | ▪ Human Resource Development |
| ▪ Biotechnology, Nanotechnology in Aquaculture | ▪ Aquaculture Engineering |
| ▪ Environmental Management | ▪ Freshwater Aquaculture |
| ▪ Sustainability , Livelihood & Nutritional Security | ▪ Brackishwater Aquaculture |
| ▪ Processing and Value Addition | ▪ Mariculture |
| ▪ Food Quality & Safety | ▪ Ornamental Fish Culture |
| ▪ Economics, Marketing, Trade & Policy | ▪ Innovative Systems and Practices |
| ▪ Human Resource Development | ▪ Seed production |

Special sessions relevant to aquaculture development in Africa include:

- Egyptian Aquaculture Session (English and Arabic)
- Near East and North Africa Grey Mullet Aquaculture and Stock Enhancement Session (English).
- FAO-Egypt Aquaculture Biosecurity Session (English)
- Industry Session – (English and Arabic)

More sessions will be announced in due course.

Details regarding online submissions of abstracts (including full guidelines for abstract preparation and an abstract sample will be available soon on:

www.was.org

CALL FOR PAPERS – SUBMIT YOUR PAPERS NOW!

DEADLINE: February 28, 2022

AFRAQ2021 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. English encouraged, but 2 official languages (English or French) accepted. Power Point Presentation – Slides - same as above – English strongly encouraged. Oral Presentation: any of the 2 official languages. At the conference, the abstracts may be presented in English or French. Title the same language as presentation.

Each oral presenter shall be entitled to no more than 20 minutes comprised of 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 can only use Power Point. Overhead projectors, slides and video players will not be available or allowed

All presenters are required to pay their own registration, accommodation and travel expenses. AFRAQ2021 cannot subsidize registration fees, travel or hotel costs

INSTRUCTIONS FOR PREPARATION OF ABSTRACTS

Extended Abstract Format – Please refer to the sample.

- 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. Scientific names should not be preceded or followed by commas or parentheses or other markings.
- AUTHOR(S) :** The first name should be the presenting author. Use *after the presenting author. Type in upper/lower case.
- ADDRESS AND EMAIL :** Type only the presenting author's institution, address and email. Type in upper/lower case.
- MAXIMUM LENGTH :** One Page
- PAGE SIZE :** Standard 210mm x 297mm A4 paper (portrait)
- MARGINS :** 1-inch margin throughout(left/right/top/bottom)
- SPACING :** Single spaced
- PARAGRAPHS :** Paragraphs should be separated by a blank line and should not be indented.
- FONTS :** Character fonts should be 12 point type.
- FIGURES & TABLES :** Figures and tables are highly recommended. They should be reduced to the appropriate size for a one page abstract and should be clearly readable at the reduced size in black print only. The reduced figures and tables should be included in the abstract in camera-ready form.
- MEASUREMENTS :** Use metric units of measurement. When needed, English equivalents may be given in parentheses.

1 inch margin

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

Laura A. Martinic*, Kenneth R. Thompson, Tracy Christian, Carl H. Webster, Lukasz Manowicz, and David R. 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 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 the very early stages of development. Little is known about their nutritional requirements and practical diet formulations. No commercial crayfish require lecithin and cholesterol to be added to their diet, these two nutrients are important for growth and cholesterol are very expensive. Since diet costs can be as much as 70% of the total cost of an aquaculture enterprise, it is imperative that the least expensive diet be formulated. The present study was conducted to determine if cholesterol and 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 aerated biofilter juvenile (10-15g) weight of 0.2 g red claw, each stocked in 10 L mesh culture units. Individual units were within fibreglass tanks, each containing a water line. Water was recirculated through a mechanical filter, water pump, and aerator. Temperature was maintained at 27-29°C and lighting was provided by fluorescent ceiling lights on a 12:12 hour light/dark cycle. Ammonia, nitrite, and nitrate were monitored daily. Crayfish were fed three times per week. The 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 with or without cholesterol (Diet 1) that 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% ecom oil and having no lecithin appears to be sufficient and that lecithin may not be necessary for juvenile red claw diets.

1 inch margin

8.5 inches wide

11 inches long

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

	1	2	3	4
Menhaden fish meal	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	0.0
Cholesterol	1.0	1.0	0.0	0.0
Other	38.5	29.0	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 ($P < 0.05$).

	1	2	3	4
Final weight (g)	0.97 ^a	0.00 ^a	3.60 ^b	5.13 ^b
Weight gain (%)	234 ^a	287 ^a	177 ^b	244 ^b
SGR (day ⁻¹)	1.76 ^a	1.66 ^a	4.09 ^b	5.41 ^b
Survival (%)	76.0	64.0	56.0	99.0

PLEASE SUBMIT YOUR ABSTRACT ONLINE

Submit abstracts via the internet at the meeting website : www.was.org Follow the complete instructions on the online submission.

If you are unable to submit your abstract online, contact the Conference Manager for alternative methods at : worldaqau@was.org or Fax: +1-760-751-5003



AFRAQ2021

March 25 - 28, 2022

Register online at: www.was.org

Return address for international 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 _____ (<i>please</i> include email address)			
Postal Address _____			
City _____	State / Prov _____	Postal Code _____	Country _____
Phone _____ (Include country and city code)	Fax _____ (Include country and city code)	Title: (circle one) Dr. Mr. Ms. Mrs.	

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 Feb. 28, 2022	Register after Feb. 28, 2022	
FULL CONFERENCE & TRADE SHOW In order to receive the Pre-Registration discount rate, this form and payment must be received by the date above			
AFRICAN NATIONALS			* 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. TOTAL REGISTRATION FEE US\$ _____
MEMBER RATE*	<input type="checkbox"/> US\$ 325	<input type="checkbox"/> US\$ 490	
STUDENT MEMBER RATE*	<input type="checkbox"/> US\$ 165	<input type="checkbox"/> US\$ 195	
Non-Member Rate	<input type="checkbox"/> US\$ 425	<input type="checkbox"/> US\$ 590	
Student Non-Member Rate	<input type="checkbox"/> US\$ 215	<input type="checkbox"/> US\$ 255	
You can join WAS on the reverse side and use			
NON-AFRICAN NATIONALS			
MEMBER RATE*	<input type="checkbox"/> US\$ 395	<input type="checkbox"/> US\$ 490	
STUDENT MEMBER RATE*	<input type="checkbox"/> US\$ 165	<input type="checkbox"/> US\$ 195	
Non-Member Rate	<input type="checkbox"/> US\$ 495	<input type="checkbox"/> US\$ 590	
Student Non-Member Rate	<input type="checkbox"/> US\$ 215	<input type="checkbox"/> US\$ 255	
You can join WAS on the reverse side and use			
TRADE SHOW PASS Good for 3 days admission to exhibits only - December 11-14, 2021 <div style="text-align: right;">(Trade show pass is included with the Full Conference Registration)</div> <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> US\$ 30 TOTAL TRADE SHOW PASS US\$ _____ </div>			
INDUSTRY TOURS - Details to come			TOTAL INDUSTRY TOURS US\$ _____
MEMBERSHIP DUES - Enter amount from Membership Application on other side if applicable.			TOTAL MEMBERSHIP DUES US\$ _____
Do not mail registration after Feb. 28, 2022 or fax after Feb. 28, 2022 After February 28, 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 February 28, 2022. 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 February 28, 2022 or for "no shows". After February 28, 2022, 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 AFRAQ2021.

For bank transfer details, contact us.

<input type="checkbox"/> Check # _____	<input type="checkbox"/> Visa	<input type="checkbox"/> Mastercard	<input type="checkbox"/> American Express	<input type="checkbox"/> Discover	<input type="checkbox"/> Diners Club
Card # _____		Expiration Date _____		Sec Code _____	
Name on Card _____		Date _____		Signature _____	
Credit Card Billing Address _____					

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 ☐ African Chapter

AFFILIATE MEMBERSHIPS:

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

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 110/yr) Applies to an individual only
- ☐ **Individual** (E Access) (USD 45/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 1000 with no chapter) Applies to an individual only

CHAPTER OPTIONS:

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

- ☐ **Africa**
- ☐ **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).

Engaging with Industry

The Aquaculture Africa events are all about communication with the sector. AFRAQ2021 will feature a special international trade exhibition, where Egypt and international companies will present their latest technologies, products and services. Both Standard and Corner booths will be available and each booth is 6m2 (2x3m) and features walls, carpet, two chairs and one table, spotlights, one power outlet, fascia identification sign and two free passes for the conference. We can provide meeting points for industry associations, organization/industry panels or B2B meetings, platforms for satellite workshops of African aquaculture projects and other events. Organization/industry panel meetings will take place around the trade exhibition, and technical tours will be organized.

Networking for Students

Special forums and events will be arranged for students attending AFRAQ2021 to enable networking and exchange of ideas. The forums/events will have a dedicated programme and include a special student reception. 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.

Farm Tours

Aquaculture tours are being organized at some aquaculture projects and facilities near Alexandria. More details available on website.



FULL CONFERENCE REGISTRATION INCLUDES:

- Admission to all sessions (including reception), seminars and the trade show.
- Conference bag and Show Directory
- Refreshment breaks (including lunch)
- Abstract App and/or Abstract Book

*To qualify for Member Rate, you must be a WAS member in good standing

Trade Show Pass only –
Valid whole period: USD30

AFRAQ2021 Tentative Programme Overview

Friday, March 25

Aquaculture Tours	0700 - 1700
Registration Open & Exhibit Set-up	1200 - 1700

Saturday, March 26

Registration Open	0730 - 1700
Welcome Words & Awards	0900 - 0920
Plenary Sessions	0920 - 1020
Opening Ceremony	1020 - 1040
Official opening exhibition	1040
Break	1040 - 1100
Trade Show	1000 - 1800
Sessions	1100 - 1220
Lunch	1220 - 1320
Sessions	1320 - 1540
Break	1540 - 1600
Sessions	1600 - 1740
Posters	1030 - 1800
Student Reception/Workshop	1900 - 2100

Sunday, March 27

Registration Open	0730 - 1700
Sessions	0900 - 1020
Break	1020 - 1040
Trade Show	1000 - 1800
Sessions	1040 - 1200
Lunch	1200 - 1300
Sessions	1300 - 1540
Break	1540 - 1600
Sessions	1600 - 1740
Posters	1030 - 1800

Monday, March 28

Registration Open	0800 - 1500
Sessions	0900 - 1020
Break	1020 - 1040
Trade Show	1000 - 1600
Sessions	1040 - 1200
Lunch	1200 - 1300
Sessions	1300 - 1540
Break	1540 - 1600
Sessions	1600 - 1740
Posters	1030 - 1600
Exhibit Move-out	1600 - 1900

AFRAQ2021 Steering Committee and National Organizing Committee

AFRAQ2021 Conference Chairs:

- WAS African Chapter President & Egyptian Aquaculture Society Vice-President, EGYPT
– Dr. Sherif Sadek
- Chairman of General Authority of Fisheries Resources Development (GAFRD), EGYPT
– Prof. Salah Mesalhy Aly

AFRAQ2021 Steering Committee (SC):

- President of SC and Prof. Emeritus of Fish Breeding and Genetics, Central Laboratory for Aquaculture Research (CLAR), EGYPT - Dr. Hussein Elghobashy
- OIE of WorldFish, EGYPT – Dr. Ahmed Nasr-Allah
- General Director: Central Laboratory for Aquaculture Research (CLAR), EGYPT
– Prof. Amira Elhanafy
- Professor: Alexandria University, EGYPT - Prof. Abdel Fatah El Sayed
- Associate Prof: National Institute of Oceanography and Fisheries (NIOF), EGYPT
– Dr. Eman Mamdouh
- Mr. Ramadan Abdou, Chairman of the Egyptian Union of Fishermen Cooperatives (EUFC), EGYPT
- Co-ordinator: Zambia Aquaculture Development Programme (ZAEDP), ZAMBIA
– Dr. Alexander Shula Kefi
- WAS African Chapter Secretariat, SOUTH AFRICA – Mr. Blessing Mapfumo

AFRAQ2021 National Organizing Committee (NOC):

- Dr. Doaa Hamam, International Relations Department (GAFRD)
- Mr. Khaled El-Agroudi, Public Relations Department (GAFRD)
- Dr. Amr Moneer Helal, National Institute of Oceanography and Fisheries (NIOF)
- Prof. Nevine Abou Shabana, National Institute of Oceanography and Fisheries (NIOF)
- Eng. Mohamed Gouda, Egyptian Union of Fishermen Co-operatives (EUFC)
- Prof. Abdel-Hamid Eed, Suez Canal University
- Eng. Aymen Rostom, Skretting, Egypt
- Eng. Hussein Mansour, Aller-Aqua, Egypt
- Ms. Sara Ossam, Alexandria University Student Coordinator

AFRAQ2021 Program Co-Chairs:

- Prof. Salah Moselhy, GAFRD Chairman, Suez Canal University, EGYPT
- Prof. Peter Britz, Rhodes University, SOUTH AFRICA
- Dr. Jean-Michel Mortillaro, CIRAD, MADAGASCAR



Location – Alexandria City

Aquaculture Africa (AFRAQ2021) will be held at the Bibliotheca Alexandrina in Alexandria City, Egypt.

For more information about the Bibliotheca Alexandrina, visit: www.bibalex.org

For more information about Alexandria City, visit <http://www.touregypt.net/alexandria/>

AFRAQ2021 Contacts

For more information, please stay in touch with AFRAQ2021 Conference Management Team or visit our website **www.was.org**



Conference Management

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Valley Center, CA 92082 USA

Tel: +1-760-751-5005

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Email: worldaqua@was.org

Web: www.was.org

Trade Show, Exhibition and Sponsorship

Email: mario@marevent.com

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African Chapter of the World Aquaculture Society (WAS-AC)

C/O AUDA-NEPAD Agency

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africanchapter@was.org

