AQUACULTURE ASSOCIATION OF CANADA | ASSOCIATION AQUACOLE DU CANADA

Watermark

News from the Aquaculture Association of Canada

May 2016 Issue 20160503

President's Message

In this issue

The Aquaculture Association of Canada receives dozens of requests yearly for information from the public at large on general aquaculture questions, research and development issues, and the current status of this or that species in Canada. We typically point the queries to the appropriate persons for responses, as they come in. As a valued member, we appreciate those that do respond for taking the time to disseminate and educate enquiring minds. The AAC does not take sides on debates or current issues, as part of its mandate is to foster the aquaculture sector through the dissemination of unbiased information, technical or otherwise.

I recently had the opportunity to attend the Growing the Agriworkforce National Summit in Winnipeg. There is a clear gap between the number of jobs in the aquaculture sector across Canada (15% of total workforce, 7% unfilled at any given time). The aquaculture industry loses millions of dollars annually from the unfilled vacancies, and the gap is expected to double in the next decade unless solutions can be found. For a round up of the sessions, please visit CAHRC's Agriworkforce Summit summary page for more detailed information.

Finally, we have a great line of up speakers and topics on the latest in Canadian aquaculture research and development planned for our upcoming joint conference with the Newfoundland Aquaculture Industry Association in September 2016 in historic Newfoundland and Labrador. All members are welcomed to submit abstracts to present a paper at the conference, be sure to visit our website often for more details. The theme this year is Aquaculture – Leading Sustainable Food Production in keeping with the primary objective of aquaculture, which IS to produce food for a growing human population.

Cyr Couturier, AAC President
president@aquacultureassociation.ca

Aquaculture Canada 2016

Aquaculture Canada 2016 will be held at the Delta hotel in St. John's, Newfoundland from September 18th - 21st 2016. AC 2016 will be co-hosted with the Newfoundland Aquaculture Industry Alliance (NAIA). The meeting will jointly hold Aquaculture Canada 2016 and Cold-Harvest 2016 together.

naia

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AC 2016 Important Dates

Abstract submission	May 27/16
Student Travel Award	June 1/16
Student Scholarship Award	June 1/16
Lifetime Achievement Award	June 1/16
Early bird registration	June 15/16

AC 2016- Award Deadline Extended

Please note that the application deadline has been extended for Student Travel Awards, Student Scholarships, and nominations for the Lifetime Achievement Award, to ***June 1st 2016***

Editor's Note- New AAC Bulletin

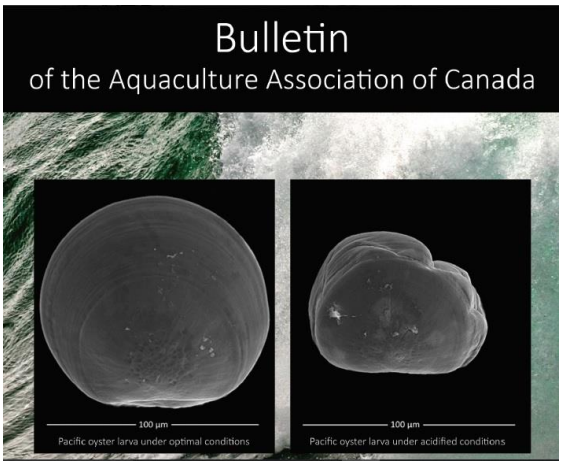
Proceedings of the Atlantic and Pacific Climate Change and Aquaculture Workshops (2015-2)

This issue of the Bulletin of the Aquaculture Association of Canada summarizes industry led workshops on the research and development needs for Climate Change and Aquaculture. The issue focuses on the needs of both the shellfish and finfish aquaculture industry in Canada.

Thanks to the Atlantic Canada Fish Farmers Association and the British Columbia Salmon Farmers Association for leading the workshops; to Dr. Gregor Reid of the University of New Brunswick and Dr. Helen Gurney-Smith of Vancouver Island University for facilitating and organization of the workshops and Proceedings, and to the Natural Sciences and Engineering Research Council of Canada, the Huntsman Marine Science Centre, Fisheries and Oceans Canada, and others that provided support to convene the workshops.

Please check out this excellent resource on an emerging (and urgent!) topic in aquaculture.

http://www.aquacultureassociation.ca/assets/Uploads/Climate-Change-and-Aquaculture-Workshop-Proceedings-2016.pdf



"We must plant the sea and herd its animals using the ocean as farmers instead of hunters"

-Jacques Cousteau

Aquaculture – leading sustainable food production

Invited Speakers

Earning and Keeping Public Trust in the Canadian Food System - *Crystal Mackay, CEO, FarmFoodCare Canada and the Canadian Center for Food Integrity*

Producing Healthy Sustainable Food for the World
Trond Davidsen, President, International Salmon Farmers Association

Towards Sustainable Feed Production for Aquaculture
Dr. Adel El-Mowafi, Managing Director, Aquaculture R&D, Cargill

Aquaculture Canada and Cold Harvest 2016 Conference and Tradeshow

Sept 18-21, 2016, St. John's, Newfoundland

List of Sessions being planned

- Aquatic Animal Health and Integrated Pest Management
- Integrated Waste Management
- Aquaculture and Coastal Management
- Benthic Monitoring
- Nutrition and Feeding
- Genomics and Breeding
- Physiology
- Integrated Multitrophic Aquaculture and Aquaponics
- Labour Market
- Land-based Aquaculture
- Advances in Shellfish Aquaculture
- Advances in Finfish Aquaculture
- Innovative Technologies

For further information and updates to the program sessions please visit our website:

WWW.AQUACULTUREASSOCIATION.CA

Aquaculture Association of Canada / Association Aquacole du Canada

naia
Newfoundland Aquaculture Industry Association

Conference Manager: Joanne Burry | Email : jmburry@nl.rogers.com | 506-529-4766

Student's Corner

Student Communication at Aquaculture Canada

The increasing demand for farmed aquatic products has considerably intensified the aquaculture production in the last years. The theme of the Aquaculture Canada and Cold-Harvest Conference 2016 (Aquaculture – leading sustainable food production) is therefore aimed to support aquaculture sustainable management practices and future expansion of the industry. The conference will address issues related to aquatic animal health and pest management, aquaculture and coastal management, nutrition and feeding, genomic and breeding, IMTA and advances in the field of shellfish and finfish production. People from all over the world will be sharing their research and work experience with scientists and industry leaders. This is a great opportunity to meet potential supervisors, employers, collaborators and people from all different fields. Communication is one of the most essential components for future aquaculturists and this conference can be a great moment for new ideas and approaches towards sustainability.

The Student Affairs Committee will be looking for volunteer to help with registration, silent auction, Dr. Joe Brown BBQ and audio visual. AAC will provide assistance for volunteers. Students can apply to travel support for transportation, accommodation and conference registration. Please, visit the AAC website (http://www.aquacultureassociation.ca/awards/new-page-6/) for more information about awards and volunteers or contact brunolg@mun.ca.

Bruno Gianasi, AAC Board of Directors, Student Affairs Committee

New Course- Fall 2016

Memorial University- Department of Ocean Sciences OCSC 3000 Aquaculture Principles and Practices

Techniques and methods used to culture finfish and shellfish, with a primary focus on Canadian aquaculture species

Instructors: Drs. Kurt Gamperl, Jillian Westcott, and others. For more information on programs and courses, visit www.mun.ca/osc

Looking for employment?

Check these out!

http://www.aquacultureassociation.ca/aac-news/jobs/

https://www.was.org/wases/Jobs/index.aspx

Silent/Live Auction

Donation items are requested for our Silent Auction this year, in support of AAC students (for travel awards, presentation awards, scholarships, etc.). Please contact Stefanie Hixson shixson@ryerson.ca

Interesting look at prospects in Aquaculture

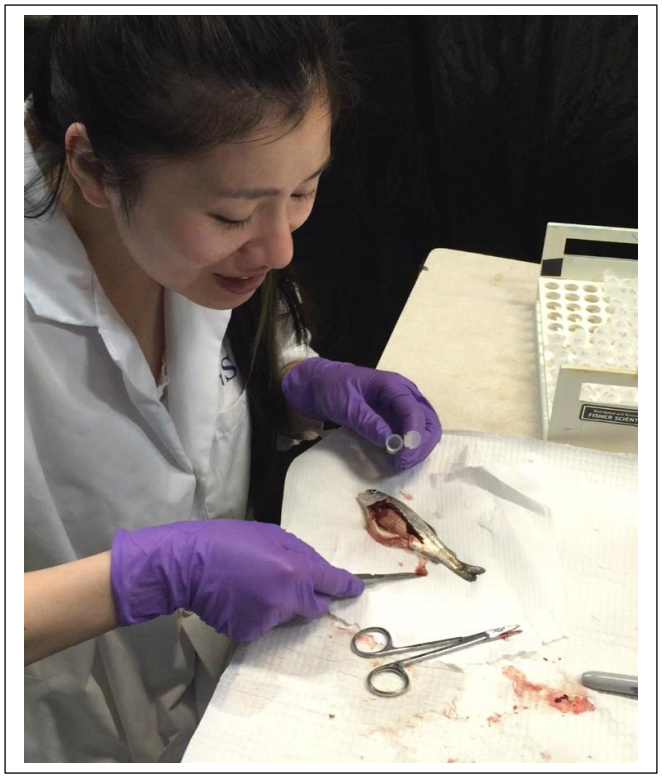
Aquaculture North America Special Feature on Training and Education

http://aquaculturenorthamerica.com/downloads/816/download/ANAN-prospectsinaquaculture2016.pdf?cb=446b43802cd6c9df8ca07d3111a2c410

Student Award Winner Profile

Jing Lu, M.Sc. Student – Oral Presentation Award 2015

Where and what you are studying? Who is your supervisor?
I am a graduate student at Dalhousie University working under the supervision of Dr. Derek Anderson in fish nutrition. It is my fortune to have such a supportive and caring mentor.



What is your thesis about?
I always tell people that my thesis is about "turning baby salmon into vegetarians". I ran five feeding trials evaluating the effects of products from the oilseed crop *Camelina sativa* on the growth performance and intestinal health of Atlantic Salmon and rainbow trout at their early life stages. My results are part of the application being submitted to the Canadian Food Inspection Agency for camelina and its by-products to be approved as feed ingredients for salmonids in Canada.

What is your background?
I have been involved in aquaculture since 2008. I had a B.Sc. degree in Agricultural Economics but I took every course required for an Aquaculture major. I spent two summers working as a research assistant and two years working independently as a weekend lab technician at the Aquaculture Center at the Dalhousie University Agricultural Campus. This gave me opportunities to get involved with different aquatic species at every life stage, from the egg to broodstock, either in flow-through or recirculation systems.

How did you get interested in what you are studying?
I have always found nutrition studies fascinating. I was so eager to understand every aspect of my study that my supervisor had to tell me to stopping adding new procedures to it.

What if any challenges do you face in your studies?
I believe challenges make you grow. I came across all kinds of difficulties in my trials, from preparing novel feed ingredients to designing appropriate systems to take care of fish at their most delicate stages. I always used what I learned from the previous trial to make the next trial better. A Master's degree is not just about what results you get. What is more important is learning how to conduct successful experiments.

What do you see yourself doing after you graduate?
I am interested in a PhD position that would let me dive a bit deeper into either the biochemistry or genomics side of nutrition, where most of the results for growth performance can be explained.

Want to be featured in the next ***Student Spotlight***? Submit a short summary of your research (~200 words) and your photo to be featured in the next issue of the Watermark! Send your submission to shixson@ryerson.ca

In the News

The Seas Will Save Us: How an Army of Ocean Farmers are Starting an Economic Revolution

Sea Superfoods (Food in Canada)

The genetic rule for salmon: Keep a back-up copy

Putting the organic into aquaculture

Omega-3 supply: Climate change could threaten global EPA & DHA supply

Freshwater microalgae may offer promise for aqua feed: Canadian team

Recently published: Canadian aquaculture research

Clements J, Chopin T. 2016. Ocean acidification and marine aquaculture in North America: potential impacts and mitigation strategies. *Reviews in Aquaculture.* doi:10.1111/raq.12140

Cubillo AM, Ferreira JG, Robinson SMC, Pearce CM, Corner RA, Johansen J. 2016. Role of deposit feeders in integrated multi-trophic aquaculture — A model analysis. *Aquaculture*. doi:10.1016/j.aquaculture.2015.11.031

Hamoutene D, Salvo F, Donnet S, Dufour SC. 2016. The usage of visual indicators in regulatory monitoring at hard-bottom finfish aquaculture sites in Newfoundland (Canada). *Marine Pollution Bulletin*. doi:10.1016/j.marpolbul.2016.04.028

Hixson SM, Parrish CC, Xue X, Wells JS, Collins SA, Anderson DM, Rise ML. 2016. Growth performance, tissue composition and gene expression responses in Atlantic salmon (*Salmo salar*) fed varying levels of different lipid sources. *Aquaculture*. doi: 10.1016/j.aquaculture.2016.04.011

Martinez-Espiñeira R, Chopin T, Robinson S, Noce A, Knowler D, Yip W. 2016. Contingent valuation of the biomitigation benefits of integrated multi-trophic aquaculture in Canada. *Aquaculture Economics & Management*. doi:10.1080/13657305.2016.1124935

van Dam-Bates P, Curtis DL, Cowen LLE, Cross SF, Pearce CM. 2016. Assessing movement of the California sea cucumber *Parastichopus californicus* in response to organically enriched areas typical of aquaculture sites. *Aquaculture Environmental Interactions*. doi:10.3354/aei00156

Ye CL, Anderson DM, Lall SL. 2016. The effects of camelina oil and solvent extracted camelina meal on the growth, carcass composition and hindgut histology of Atlantic salmon (*Salmo salar*) parr in freshwater. *Aquaculture*. doi:10.1016/j.aquaculture.2015.08.019

Upcoming Events

International Symposium on Fish Nutrition and Feeding **June 5-10, 2016** Sunny Valley, Idaho

International Conference of Fish & Shellfish Immunology **June 26-30, 2016** Maine, USA

International Conference on Aquaculture & Fisheries Industry **August 8-10, 2016** Las Vegas, Nevada

Aquaculture Canada and Cold Harvest **September 18-21, 2016** St. John's Newfoundland

Aquaculture Europe **September 20-23**, 2016 Edinburgh, Scotland

Sea Lice 2016 **September 26-28, 2016** Westport, Ireland

International Conference on Aquaculture & *Fisheries* **September 29-October 01, 2016** London, United Kingdom

Farmed Seafood Recipe- Spring Edition

Hawaiian-style salmon sliders

8 Kings Hawaiian Sweet Rolls (or sweet dinner rolls)

2 Farmed salmon fillet (for 8 sliders)

½ cup teriyaki sauce

¼ cup Sesame oil

1 tablespoon Fresh ginger (grated or finely minced)

Wasabi mayonnaise (or regular mayonnaise)

Prepare salmon- remove skin and cut into 8 portions (about size of the slider buns).

Combine teriyaki sauce, sesame oil, and fresh ginger. Marinade salmon in sauce for 4 hours.

Turn oven onto broil.

Line a cookie sheet with tin foil. Evenly space salmon on the cookie sheet.

Broil for salmon for 7-10 minutes.

Prepare slider buns by spreading mayonnaise. Add lettuce or coleslaw, pineapple, or pickled ginger if desired.

Top with cooked salmon. Enjoy!

Photo credit: www.cookingchanneltv.com

Aquaculture Association of Canada 2015/2016 Board of Directors

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Watermark Production

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Catriona McLanaghan

Betty House

Do you have suggestions for the next issue? Email: shixson@ryerson.ca

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