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News from the Aquaculture Association of Canada

October 2017 Issue 20171023

President's Message



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2017-18 AAC Board of Directors

It is a pleasure to represent the AAC, with a new and energetic Board of Directors. We have an excellent mix of new and experienced members representing academia, government, and industry sectors across Canada. Our Members can be pleased with the diverse representation, and we are motivated and driven to support our members and the links among our sectors.

The recent Aquaculture Canada 2017 meeting held in Halifax was an exciting event, and certainly was a culmination of discussion, presenting our latest information, recognizing our challenges, and brainstorming our way forward. This year we co-hosted our conference with the Aquaculture Association of Nova Scotia, to co-host AC and Sea Farmers 2017. Please see Tara Daggett's (AAC Secretary) candid and eloquent summary of events (page 9), which highlights a passion for aquaculture and quality and nutritious seafood (warning: this article will probably make you hungry). As Canadians become more interested in their food- where it comes from, how it is made, how it looks and how it tastes - we are challenged to be open about our methods and practices, but more importantly, we have an opportunity to showcase the nutritious farmed seafood we produce here in Canada.

The outlook for 2017-18 is promising. Of course, the AAC will continue to strive for our primary objectives of fostering the aquaculture industry in Canada, to promote aquaculture science, to gather and disseminate pertinent information that is needed to support industry growth and to strengthen and update regulations toward a sustainable aquaculture industry, and to create public awareness and understanding of aquaculture. We are also driven to support and promote our student members, passing our knowledge and passion in support of them is important for the future of aquaculture. Please see page 6 for a feature on the 2017 student oral presentation award winner, Jennifer Weitzman.

In anticipation of Aquaculture Canada 2018, we are beginning to create an excellent program for the upcoming conference that will be held in Quebec City. Please have a look at the interesting article on page 4 on some of our aquaculture heritage, dating back to the mid-1700s, which we now recognize as Quebec. AC 2018 will be a good opportunity to recognise Quebec's aquaculture pioneers.

Finally, I invite our members, as always, for your suggestions on how the AAC can fulfill our primary objectives of fostering aquaculture activities in this country. As plans are underway for AC 2018, I also invite your input for plans and program suggestions for the conference. Make sure you mark May 27th-30th in your calendars for next year!

Stefanie Colombo, AAC President (president@aquacultureassociation.ca)

Aquaculture Canada 2018

Aquaculture Canada 2018 will be held at Le Concorde, Quebec City, Quebec from May 27th - 30th 2018.



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AC 2018 Important Dates

Abstract submission	TBA
Student Travel Award	Mar 16/18
Student Scholarship Award	Mar 16/18
Lifetime Achievement Award	Mar 16/18
Early bird registration	TBA



Lifetime Achievement Award Nominations

The Aquaculture Association of Canada is now accepting nominations for the LIFETIME ACHIEVEMENT AWARD. The tradition of recognizing a prominent member of the Canadian aquaculture community is a timed honour tradition of the association. A list of the previous recipient can be found at:

<http://aquacultureassociation.ca/category/awards/lifetime-achievement/>

To submit a nomination, consider a prominent member of the aquaculture community; simply provide a letter of support for the candidate. Letters of support from numerous individuals will strengthen the nominee application. We request that all letters of support are sent to Matthew Liutkus, Chair of the Awards Committee at aacawards@gmail.com

DEADLINE FOR SUBMITTING LETTERS OF SUPPORT: MARCH 16TH 2018



STUDENT CONFERENCE AWARDS – YOUR CHANCE TO SHINE

AAC Students – please consider submitting an application for the annual AAC Student Travel and Student Scholarships. Don't miss your opportunity to receive support to attend this year's conference.

Deadlines this year:

Student Travel and Scholarships – March 16th 2018

Full details on eligibility and how to apply are available on www.aquacultureassociation.ca.

Completed applications are to be sent to Matthew Liutkus, Chair of the Awards Committee at aacawards@gmail.com

To be eligible for the best student poster or best student presentation awards at the conference, you need to declare that you want to be judged on your registration sheet. To receive your travel support you must volunteer with student activities at the conference.

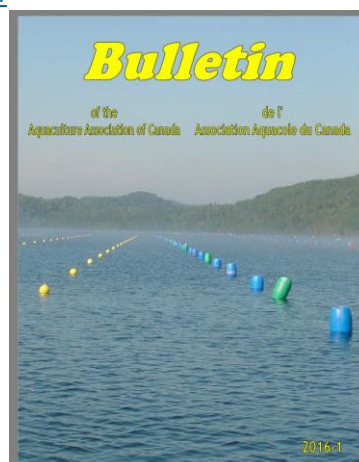
Editor's Note - Publications

Bulletin of the Aquaculture Association of Canada (2016-1)

This issue of the Bulletin of the Aquaculture Association of Canada provides a variety of articles, from aquaponics to aquaculture modelling methodology, to the newest addition to the Huntsman Marine Sciences Centre.

It can be found at the following weblink:

<http://aquacultureassociation.ca/wp-content/uploads/2017/01/AAC-Bulletin-2016-1-1.pdf>



If you would like to submit articles for publication in a future Bulletin of the Aquaculture Association of Canada, please contact the Publications Chair, Dr. Helen Gurney-Smith at Helen.Gurney-Smith@dfo-mpo.gc.ca.

Student's Corner

Open-door for research funds and job opportunities at Aquaculture Canada

The Aquaculture Association of Canada promotes several activities throughout the year to disseminate information among industry, academia, and funding agencies and encourages educational, scientific, and technological development focusing on the students, which are the future generation of aquaculturists. One of these activities is the annual Aquaculture Canada Conference where people from all over the world share their research and work experience. 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 the AAC Conference can be a great moment for new ideas, jobs, Masters and PhDs.

At Aquaculture Canada & Sea Farmers 2017, the AAC hosted a student gathering at a local pub in Halifax where all students attending the conference were welcome to join. This was a great opportunity to meet and talk to other students in several fields of aquaculture. Next year, Aquaculture Canada will be held in Quebec City during May 27th-30th at Le Concorde, and we are planning a similar gathering with all students. The Student Affairs Committee will be looking for volunteer to help with registration and silent auction at AAC 2018. AAC will provide some assistance for volunteers as well as have awards for best student oral and poster presentations. Students can apply to travel support for transportation, accommodation and conference registration. Please visit the AAC website (<http://aquacultureassociation.ca/about-us/>) and like the Aquaculture Association of Canada Facebook page for more information about awards and volunteering, or contact Bruno Gianasi at brunolg@mun.ca.

Bruno Gianasi, AAC Board of Directors, Student Affairs Committee



*The Aquaculture Association of Canada would like to
thank all donors of product and auction items for
Aquaculture Canada & Sea Farmers 2017!*

Quebec Aquaculture Pioneers

Submitted by Julian Hynes

In his remarks in the conference booklet for Aquaculture Canada and Sea Famers 2017 federal minister Dominic LeBlanc noted “The first detailed records of planned aquaculture activity date back to 1857 when the incubation and hatching of Atlantic salmon and brook trout eggs were studied in what is now present-day Quebec.” The occasion of Aquaculture Canada 2018 may be a good opportunity to recognise Quebec’s aquaculture pioneers.

The National Fish Culture Hall of Fame at Spearfish South Dakota was set up by the Fish Culture Section of the American Fisheries Society of which Canada is a part. As a former member of FCS-AFS I nominated Ontario’s Samuel Wilmot who established an Atlantic salmon hatchery in 1866 on Wilmot Creek, a tributary of Lake Ontario. He was inducted in 1987 as the first and so far only Canadian to be recognised there among over fifty people who have made significant contributions to the advancement of fish culture.

The Fish Culture Hall of Fame was established in 1985 by the Fish Culture Section of the American Fisheries Society to honor persons who have made significant contributions to the advancement of fish culture. The Hall of Fame is located in a replica 1899 Ice House located at the D.C. Booth Historic National Fish Hatchery in Spearfish, South Dakota. Below are the inductees, including biosketches detailing their significant contributions to fish culture. To nominate a fish culturist for induction into the Hall of Fame, contact the Chair of the FCS Hall of Fame Committee, or the Hatchery Hall of Fame Coordinator for nomination forms and information.

Samuel Wilmot Today, nothing exists but memories of the Newcastle Hatchery by Wilmot Creek and a few willow trees that are over a century old. From 1866 until 1914, Samuel Wilmot oversaw the 155 million fish that were hatched and distributed. Due to the decrease in the numbers of Atlantic salmon in Lake Ontario, Samuel Wilmot took it upon himself to prevent the disappearance of the salmon from the waters. His Newcastle Fish Hatchery started as a small wood structure in 1866 and hatched 15,000 eggs in the spring from fifteen adult salmon. Within two years, Wilmot built a larger hatchery and took the hatched eggs to plant the fry into small streams entering Lake Ontario. As the salmon numbers increased, Samuel Wilmot carried out his rearing trail on other species including whitefish, salmon trout (lake trout), brook trout, pickerel (walleye) and black bass. These fry were mainly distributed in Ontario, but others were shipped as far away as Great Britain. Samuel Wilmot’s success is largely due to the techniques and equipment he developed. By using shallow hatching trays with a steady stream of water, one could see the dead eggs which could be easily removed. Similar trays, such as the Heath Tray used today, is a modified version of Wilmot’s design. Samuel Wilmot’s ingenuity and forethought brought him the honor of having a complete working section of his hatchery put into operation at the “Great International Fisheries Exhibition”, in 1883 in London. Wilmot’s effort to save the Atlantic salmon from the pollution of growing industries is worthy of this honor. His efforts to artificially breed salmon have resulted in a highly successful salmonid culture. Enshrined into the “NATIONAL FISH CULTURE HALL OF FAME”, Spearfish, South Dakota, 1987. Executive Committee, Fish Culture Section, American Fisheries Society.

<http://fishculture.fisheries.org/recognizing-excellence-in-fish-culture/fish-culture-hall-of-fame/>

I invite our Quebec colleagues to investigate the history of the province’s fish culture and consider if there is someone who may be appropriately recognised in connection with AAC 2018 and perhaps also in the National Fish Culture Hall of Fame.

Student Award Winner Profile

Jenny Weitzman, PhD Student – Oral Presentation Award 2017

Where and what you are studying? Who is your supervisor?

I am currently an Interdisciplinary PhD (IDPhD) student studying sustainable aquaculture at Dalhousie University. My supervisors are Dr. Ramon Filgueira (Marine Affairs Program) and Dr. Jon Grant (Oceanography Department).

What is your thesis about?

My thesis explores the issue of developing sustainable aquaculture without causing adverse environmental, social, or economic impacts. Specifically, during my doctoral research, I will work towards developing a quantitative integrated framework for carrying capacity for salmon aquaculture that integrates these diverse components within the context of existing management frameworks and policies. This interdisciplinary work will involve a combination of ecological modelling and scenario analysis, interviews and workshops with stakeholders, and valuation of ecosystem services. The final product will be a GIS decision-support tool that can be used by policy makers and planners for sustainable monitoring, management and siting of salmon farming.

What is your background?

I have a Bachelor of Science (BSc) in Marine Biology and Oceanography and a Masters of Marine Management (MMM) from Dalhousie University. My masters' work explored the potential role of aquaculture ecolabelling for aquaculture and stakeholders perceptions of ecolabels. I worked with the Aquaculture Association of Nova Scotia with their outreach program, and was involved in public outreach and education.

How did you get interested in what you are studying?

I have always loved seafood, and developed a passion for sustainable seafood production as I became aware of the increasing threats facing global oceans and coastal communities. As I becoming involved with aquaculture, I saw the opportunities for aquaculture to provide economic growth, build communities, provide a source of food security, and reduce fishing pressures on wild stocks.

What if any challenges do you face in your studies?

Integrating diverse environmental, social and economic aspects of aquaculture into a single framework will be challenging due to the variety of qualitative and quantitative data, and the different scales on which this aspects exist.

What do you see yourself doing after you graduate?

After I graduate, I hope to continue working towards sustainable seafood production, whether it be in academia, government, non-profit or an industry setting. I always want to continue expanding my knowledge, and sharing that knowledge with others.

What has been your most positive experience in your studies so far?

Interacting with a diverse community of fish farmers, scientists, policy-makers, communities, environmentalists, and many other aquaculture stakeholders has showed me the excitement, interest and passion that exists for developing sustainable aquaculture. Interest from these groups about my research has given me confidence about the value of my work and drives my ambition in my studies and life.



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

klgill@gov.pe.ca

In the News

[New course charted for aquaculture in Canada](#)

[Aquaculture development plan announced](#)

[Salmon returning to Fundy National Park](#)

[Seafood industry pumps millions into BC economy](#)

Recently published: Canadian aquaculture research

Boerlage, A. S., Stryhn, H., Sanchez, J., & Hammell, K. L. 2017. Case definition for clinical and subclinical bacterial kidney disease (BKD) in Atlantic Salmon (*Salmo salar* L.) in New Brunswick, Canada. *Journal of Fish Diseases*. 40(3), 395-409.

DOI: 10.1111/jfd.12521

Gurney-Smith, H., Wade, A. J., & Abbott, C. L. 2017. Species composition and genetic diversity of farmed mussels in British Columbia, Canada. *Aquaculture*. 466, 33-40. DOI: 10.1016/j.aquaculture.2016.08.038

Salvo, F., Dufour, S. C., & Hamoutene, D. 2017. Temperature thresholds of opportunistic annelids used as benthic indicators of aquaculture impact in Newfoundland (Canada). *Ecological Indicators*. 79, 103-105. DOI:

10.1016/j.ecolind.2017.03.057

Weitzman, J., & Bailey, M. 2018. Perceptions of aquaculture ecolabels: A multi-stakeholder approach in Nova Scotia, Canada. *Marine Policy*. 87, 12-22. DOI: 10.1016/j.marpol.2017.09.037

Upcoming Events

Atlantic Canada Fish Farmer's Association Annual Forum & Gala, October 24-26, 2017, St. Andrews, NB

<http://www.atlanticfishfarmers.com/events-all/2017/2/13/acffa-aquaculture-research-science-and-technology-forum-2017>

Busan International Seafood and fisheries Expo (BISFE) November 8-10, 2017, Busan, South Korea

<http://www.bisfe.com/indexe.php> or contact Yoonah Lee, Trade Commissioner (Agrifood), Embassy of Canada to Korea, Government of Canada email: yoona.lee@international.gc.ca

Canada's Farmed Seafood Conference 2017 November 21-22, 2017 Ottawa, ON

<http://www.aquaculture.ca/farmed-seafood-policy-conference-2017/>

"SEAFARMERS" Conference and Trade Show January 24-26, 2018 Halifax, NS

<http://seafarmers.ca/events/>

Aquaculture America 2018 February 19-22, 2018 Las Vegas, Nevada USA

<https://www.was.org/meetings/default.aspx?code=AA2018>

8th International Symposium on Aquatic Animal Health, September 2-6, 2018 Charlottetown, PE

<https://isaah2018.com/>

Oceans of Opportunity

Canada's Farmed Seafood Policy Conference 2017

The Canadian Aquaculture Industry Alliance invites you to join them in Ottawa for Canada's Farmed Seafood Policy Conference 2017, November 21-22, 2017. Mark your calendar, register online and make your travel and accommodations booking today.

This year's theme, *Oceans of Opportunity*, reminds participants of the growing demand for seafood and the tremendous opportunities for Canada and Canada's seafood farmers in terms of global leadership, innovation, job creation and sustainable development.

CAIA's annual conference attracts leaders in the farmed seafood value chain in Canada as well as leading elected and non-elected government officials, non-governmental organizations and public policy experts from around the world.

The event will open on the evening of Tuesday, November 21st with the annual, "Tabled in the House! The Finest, Fresh, Farmed Canadian Seafood Reception," for delegates and invited guests including Members of Parliament, Senators and senior federal officials. The Reception will showcase the great farmed seafood produced in Canada, demonstrate the growing importance of Canada's farmed seafood sector and provide the opportunity to develop relationships with Ottawa policymakers.

A robust program will feature influential experts address the areas the following topics of key interest to Canada's seafood farmers:

- Getting Canadian Farmed Seafood to Market
- Canada's Role in Seafood Farming Innovation
- Connecting with the Consumer
- Local Voices – Canadian Farmed Fresh Seascape

To learn more and to register, please visit www.aquaculture.ca.



A Taste of Aquaculture Canada & Seafarmers 2017

Submitted by Tara Daggett

I'm a bit of a self-professed, amateur nutritionist. I admit, I have no formal training of such, but I do enjoy reading articles on the subject and tinkering in my kitchen to concoct nutritionally intelligent and balanced meals. Most of the time, I even succeed in making them taste good, which is not an easy task when one of your consumers is a nine-year-old who thinks ketchup is a food group. I'm not a serious food critic, but I might be a slight bit of a food snob. It's not that I require food to be elaborately prepared, I do enjoy ketchup from time to time, but ingredients should be fresh and of high quality, especially when it comes to seafood. Being at the Aquaculture Association of Canada's annual conference in Halifax this spring, cohosted by the Aquaculture Association of Nova Scotia Sea Farmers, was a great opportunity to sample some of the best seafood our country has to offer, generously donated by several of the Associations' industry members.

The President's Reception was populated with numerous tasty morsels. Thanks to the Waycobah First Nation, we had some of the freshest tasting trout I've ever had. Cyr Couturier was put to work shucking oysters provided by the Eel Lake Oyster Farm. I tried them outfitted with chimichurri sauce and horseradish sauce, but neat really is the best way to experience that little pool of brine the oyster resides in. The smoked salmon provided by Cooke Aquaculture was a party of flavors with smoky, salty, sweet, and peppery mingling with fresh lemon.

AquaPrime Mussel Ranch provided some of their plump and tender molluscs to savour. I was feeling a bit low on iron so decided to have seconds. That's my story, and I'm sticking to it. But, the real surprise of the evening was the seaweed salad made from sugar kelp provided by Mermaid Fare. I was expecting a much stronger flavor, but was greeted instead by the fresh taste of an open ocean breeze.

The student BBQ fund-raising night also presented an ideal opportunity to make sure I ate at least two servings of fish throughout the week. Cooke Aquaculture contributed some saucy salmon kabobs, and Icy Waters provided Arctic char. Both products tasted fresh and were welcomed on my plate. Bounty Bay and Mussel King provided the mussels for the evening, and it would seem I wasn't the only one feeling low on iron, as others accompanied me back to the table for seconds.

The Nova Scotia Industry night was an opportunity for sea farmers and their associates to mingle and sample each other's wares. The evening was well attended and made for rather tight quarters, but I did manage to make my way through the crowd well enough to find servers carrying several tasty offerings: Scotian Halibut on a cucumber slice, trout hors d'oeuvres prepared with Ocean Trout Farms rainbows, baked quahogs from Innovative Fisheries Products, and a different iteration of the seaweed salad. I also found the mussel station (of course). But as the gathering grew I found myself confined to a corner of Lot 6 where the oysters were. The guy shucking the oysters was kept constantly busy as each one of those bivalves flew off the bed of ice. Oysters for the night were provided by Bay Enterprises, Eel Lake, and ShanDaph. I don't know whose oysters I ate, but being stuck in a corner next to the oyster bar guaranteed that if I had been deficient in zinc or vitamin B12 before, I no longer was. North River Fish Farms provided striped bass for seafood tacos. I had heard there were fish tacos, but I never saw one. So, I can only assume they were so delicious they disappeared before the servers could make their way to the back of the room.

Our final social event was the gala evening during which we enjoyed Sober Island oysters, Marine Harvest salmon, and Bounty Bay mussels. The conference as a whole was a success, well attended with several informative sessions to take in. But the AAC is more than just a conference; it's a reunion for those passionate about growing food in the sea. And like all good reunions, there was good food. Well done, your passion tastes good!



Farmed Seafood Recipe- Fall Edition

PEI OYSTER AND MUSHROOM TOASTS

Yield: 4 servings

12 each	PEI Oysters
2 tbsp	Canola Oil
8 large	Cremini or Button Mushrooms, chopped
1 cloves	Garlic, minced
1 package	Enoki Mushrooms, sliced off stem
½ head	Radicchio Lettuce, core removed & sliced
¼ cup	Balsamic Vinegar
1 tbsp	Honey
to taste	Black Pepper
1 loaf	Fresh Baguette, sliced
1 tbsp	Fresh Chives, chopped

Method:

Scrub oysters under cold running water to remove any dirt or sand; do not submerge.

Shuck oysters; save oysters and set aside until ready to use; discard shells and oyster liquor.

Heat a grill or broiler to medium-high.

Heat a saucepan over medium-high heat; add the canola oil.

Add the cremini mushrooms and garlic; reduce heat to low and cook for 3 minutes.

Add the enoki mushrooms and radicchio lettuce and continue cooking for 2 minutes.

Add the balsamic vinegar and honey to the pan and bring to a boil; reduce heat and simmer for 1-2 minutes.

Add the oysters and season with black pepper.

Cook mixture for 1-2 minutes or until heated through.

Grill or broil bread and place onto a serving platter.

Top each toast with oyster-mushroom mixture and garnish with chives; serve hot.

Credit: PEI Department of Agriculture and Fisheries

Photo: Heather Ogg Photography



Aquaculture Association of Canada 2017/2018 Board of Directors

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Board Member: Greg Gibson, Marine Harvest Canada, Greg.Gibson@marineharvest.com

Student Board Member: Bruno Gianasi, Department of Ocean Sciences, Memorial University, brunolg@mun.ca

Thank you to outgoing Board Members Cyr Couturier, Tim Jackson, and Tom Taylor for your enthusiasm, dedication, and commitment to the success of the Aquaculture Association of Canada. We wish you well in your future endeavours!

Staff:

Office Manager: Catriona McLanaghan (Office Hours Mon-Fri, 8.30am - 2.00pm AST)

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Do you have suggestions for the next issue? Email: kgill@gov.pe.ca

