



Winter 2020

- ✿ **NL Cultivated Oysters Hit the Market**
- ✿ **Cold Harvest 2019 Highlights**





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AUG. 30-SEPT. 2, 2020

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AQUACULTURE CANADA AND WAS NORTH AMERICA 2020



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The Newfoundland Aquaculture Industry Association represents aquaculturists and the service sector in the province. Its fundamental purpose is to assist the aquaculture industry to achieve its full wealth creation potential. It is the voice for the industry by ensuring that Federal / Provincial legislation, policy, and services match the needs of the industry. It delivers programs and services to its members to attain excellence in safety, quality, environmental sustainability, and profitability. For more information on NAIA membership benefits, please contact us!



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Message from Sheldon George, President



Sheldon George, President and Chair of the Board, Newfoundland Aquaculture Industry Association

Welcome to our Winter 2020 edition of the Cold Harvester magazine. As 2019 comes to an end and we welcome 2020, it's a great time to reflect on all the positive events that occurred in the Newfoundland and Labrador Aquaculture Industry. 2019 was a very busy year. Training took place through outreach programs, further advancements with cleaner fish took place, and the Cold Harvest Conference had a record number of exhibitors and attendees.

In May of 2019, the students of the aquaculture training program in the Coast of Bays region, in a joint venture between the Marine Institute and the College of the North Atlantic, began their work terms. This was the first step for those looking for a chance to gain successful employment in our fast-paced industry. Many of these folks have since been hired by the companies they completed their work terms with and remain employed today. Hats off to both the training institutions and to the people who took advantage of the training and were successful in not only securing a career in aquaculture but doing so in their hometowns. What a tremendous success story!

Along with this training, great progress has been occurring in the use of cleaner fish on salmon farms. With this great work comes attention worldwide, leading to NL's largest cleaner fish workshop which was held in September. During this workshop, presenters and institutions from around the world gathered in St. John's for the annual Cleaner Fish workshop. Some even toured farms on the south coast to observe and learn how we are adapting the technology here in Newfoundland. Imagine that, people from other places in the world coming here to see how things are being done; kind of the opposite of what always happened in the past, we would have to travel elsewhere to learn. This is a great proof that Newfoundland aquaculturists are becoming recognized worldwide. What a major accomplishment.

Immediately following the Cleaner Fish Workshop was Cold Harvest 2019, the largest conference in its 26 years. With well over 500 attendees and 62 trade show booths, I believe we may outgrow the current facility and will have to look

at larger venues. Not just for the 2020 Aquaculture Canada and WAS North America conference, but for years to come as well. We are anxiously waiting for this conference in August 2020 in St. John's, yet another milestone for Newfoundland's aquaculture industry.

With all this activity in 2019, it is easy to see that there are many benefits of having a sustainable aquaculture industry in Newfoundland. Hats off to those people who work hard on the water and in the hatcheries every day. The recognition our industry receives is a direct result of the hard work and dedication you folks provide day in and day out. Thank you to all the farmers, mechanics, technicians and other people who hold various titles, we are extremely proud of you and thankful for the products you produce. ✨



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Message from Mark Lane, Executive Director



Mark Lane, C.D., Executive Director, Newfoundland Aquaculture Industry Association

As 2019 ends we may reflect on the year it was in aquaculture in Newfoundland and Labrador. As in years past we have experienced achievements and challenges that we can celebrate and learn from respectively.

Early in 2019, the NAIA Board of Directors and Staff developed a new Strategic Plan with a vision of setting the standard for responsible aquaculture and mission to promote opportunities for aquaculture in Newfoundland and Labrador. Our new plan focuses on three strategic directions: Public Awareness and Education; Advocacy and Sector Development.

Within each of the strategic directions there are multiple objectives and goals such as increasing public support for the aquaculture industry; enhancing and expanding community outreach; increasing public education; developing the required infrastructure for the sustainable growth of the aquaculture industry and facilitation of innovative technology transfer. In the past year we have made much progress in most areas of the Strategic Plan.

In 2019, we developed and implemented a comprehensive communications strategy for both finfish and shellfish sectors. One initiative of the communications strategy was the development of a province-wide public awareness campaign – “Bringing So Much To The Table”.

The first of two media flights resulted in more than 3.9 MILLION video impressions; 500,000 video views and almost 20,000 visits to the campaign web site: www.aquaculturenl.ca. On social media we were averaging 60,000 views on Facebook and more than 200,000 impressions on Twitter each week for the duration of the campaign.

A second media flight was launched in the fall and we look forward to reporting our results early in the New Year.

Although the industry received some negative media attention surrounding a couple of unfortunate and unavoidable events last fall, our public polling has shown that public support for aquaculture has increased to 60% over the past year.

This past year the NAIA team has developed and began to implement a strategic community outreach plan whereby we conduct regular engagement meetings with key stakeholders including First Nations and community leaders.

In September we hosted our 26th Annual Cold Harvest Conference and Trade Show in St. John's. Cold Harvest 2019 was the largest ever attended in the history of the association with more than 550 delegates and 62 exhibitors from around the world.

This year, NAIA, in partnership with the World Aquaculture Society and Aquaculture Association of Canada, will host Aquaculture North America Aug 30 – Sep 2, 2020 in historic St. John's. We are confident that this conference will be the largest of its kind ever held in Canada.

To assist our outreach capacity, this past fall we started to develop public education resources and tools for use with multiple audiences including our youth. In partnership with local technology firm, Learning Labs, we will develop the world's most comprehensive online learning portal for aquaculture: www.aquaculture101.com. Additionally, we have started to develop virtual reality engagement capabilities for use within communities and schools.

In 2019, we continued to work closely with provincial and federal government departments on multiple regulatory and legislative initiatives. On September 24, Fisheries and Land Resources Minister Gerry Byrne released a comprehensive Policy and Procedures Manual. We are committed to continued collaboration with provincial, Indigenous and non-government partners to review and modernize legislation, regulations, policies and procedures to keep this province's seafood farming business competitive, sustainable, innovative and growing. These actions are key to ensure we have the highest regulatory standard possible.

Although we still require clarification on particular aspects of the newly implemented policies and procedures, upon initial review we are confident that we can work with these regulatory changes -- our industry is well-positioned to seize the opportunity, create more new business opportunities and create more jobs.

NAIA has engaged the professional services of a consulting firm to conduct an industry-wide needs assessment for infrastructure required to assist the finfish and shellfish sectors to continue to grow in rural areas of our province.

A sector-wide infrastructure needs assessment is required to determine the future requirements of the industry to support growth in the finfish and shellfish sectors. Aquaculture operations, like any kind of commercial development, have specific infrastructure needs that are critical to industry development and expansion. It is important to identify industry's infrastructure needs and then develop a plan to ensure the sector is ready to reach the targeted production goals.

On December 10th the first oysters cultivated in Newfoundland and Labrador became officially available to customers around the world. Congratulations to Juan Roberts of Triton and his team at Merasheen Oysters Farms Inc. for having successfully produced the first oysters at a commercial scale in the history of this province for domestic consumption and export markets.

With the positive developments we experienced in our

province in 2019, the interest of international service providers and suppliers has increased substantially. The growth of our membership is evidence of this phenomena. For the first time in our Associations history, in 2019 we have grown to more than 135 members strong.

Outlined above are only a few of the highlights of 2019 and our plans for 2020.

I know first-hand the hard work and dedication that the staff of NAIA exerts day in day out on our members behalf. I want to personally thank the entire NAIA team including our dedicated volunteer board of directors for your energy, enthusiasm and expertise Thank you!

I look forward to working with you, the members, to ensure the continued sustainable growth of our renewable and environmentally friendly food producing sector. ✨

NL Cultivated Oysters Hit the Market



The 1st Newfoundland commercial cultivated oyster hit the market on December 10th. The official launch took place at Mallards Cottage in historic Quidi Vidi and were available for sale at Adelaide Oyster House that evening.

Juan Roberts of Triton and his team at Merasheen Oysters have produced the first oysters at a commercial scale in the history of this province for domestic consumption and export markets.

"It has been many years of hard-work and dedication and we are extremely happy to have reached a milestone in that we are in a position to showcase and offer our premium oysters grown in the pristine waters of Placentia Bay near Merasheen Island to the world", said Juan Roberts, President and CEO of Merasheen Oysters.

Total global production of farmed oysters is more than 600,000 mt. Worldwide, aquaculture accounts for 97% of the total oyster production. South Korea, Japan, and France are

the top three producers accounting for more than 525,000 mt or 87% of the market share.

Canada produces 1.1% and is ranked 7th in the world with 6,600 mt. ✨

An advertisement for Cooke Aquaculture. It features a man in a red cap and jacket looking out over a body of water with hills in the background. The text "Cooke AQUACULTURE" is at the top. Below it, the slogan "An ocean of opportunity awaits" is written. At the bottom, a blue banner contains the text "Ready to apply? Visit us at MyCookeCareer.com or call us at 506-755-1460." and social media icons for LinkedIn, Facebook, and Twitter.

Cold Harvest 2018 Recap

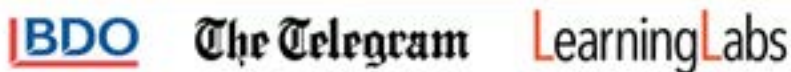
- Largest aquaculture focused conference in recent Canadian history!
- 557 delegates from around the world.
- Sold out trade show with 62 exhibits
- More than 60 presentations on human resources, social license and public trust, transparency in aquaculture, aquafeeds and nutrition, environmental aspects of aquaculture, and shellfish and finfish technology.

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| • Cargill Aqua Nutrition | • Saeplast |
| • Center for Aquaculture Technologies | • Sandale Utility Products |
| • COB Regional Development Corporation | • Scale AQ |
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| • Fisheries & Oceans Canada | • Vigilant Management |
| • FloNergia Inc. | • Wolseley Inc. Canada |
| • Gael Force Group | • Workplace NL. |
| • Grand Bank | |

Congratulations To Cold Harvest 2019 Award Receipients



Congratulations to Gael Force on winning the Excellence in Innovation Award.



The Distinguished Early Career award was presented to Julia Bungay.



Congratulations to Jim Gosse of Aqua Marine Services on winning the Aquaculture Supplier of The Year Award.



Congratulations to Brian Hull, Recipient of the 2019 Aquaculturist of The Year & Lifetime Achievement Award. Brian retired in the summer of 2019.



Two deserving awards for Aquaculture Ambassador were presented to Steve Crewe, Mayor of the Town of Hermitage Sandyville and Barry Manuel, Mayor of the Town of Grand Falls Windsor.



The Community Service Award was presented to Conservation Corps NL for their continued efforts and partnerships on the annual shoreline clean ups in the Coast of Bays.

Reflections of Cold Harvest 2019





Chefs for Oceans at Cold Harvest 2019



Chef Ned Bell with local chefs who attended the Chefs for Oceans event in September.

During Cold Harvest 2019, we also had the privilege of coordinating two other great events.

A Chefs for Oceans event took place at the Delta Hotel on September 24th. Hosted by Ned Bell, the Vancouver based Executive Chef who founded Chefs for Oceans in 2014 to raise awareness and advocate for responsible seafood choices and the importance of supporting healthy oceans, lakes and rivers. Local Newfoundland chefs joined Chef bell for a discussion on aquaculture sustainability with the theme Aquaculture 101.

During the Cold Harvest gala banquet, Delta's Chef Pierre, together with Chef Bell and Chef Watson organized and hosted an on-stage culinary masterclass and prepared delicious NL blue mussel and Atlantic salmon dishes; the same dish that the delegates enjoyed for dinner.

Special thanks to Chef Pierre, Chef Bell and Chef Watson for their professionalism and culinary expertise for helping make Cold Harvest a very successful event. 🌟





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Aquaculture Canada WAS North America

Aug. 30-Sept. 2, 2020

**St. John's, Newfoundland
and Labrador, Canada**



The **World Aquaculture Society (WAS)**, **Aquaculture Association of Canada (AAC)** and **Newfoundland Aquaculture Industry Association (NAIA)** are **excited** to co-host this **world class**, international event; surely to be the **largest aquaculture conference and trade show in Canadian history**.

The conference will feature hundreds of **world-class speakers and delegates** from around the globe on the science, technology, business and social aspects of aquaculture. St. John's is located on the **most eastern edge of North America**, is Canada's **oldest European settlement**, and the region is home to some of the **most ecologically interesting areas in the World**. Nearby **UNESCO heritage sites** and **wildlife and nature conservancies** make for exciting daily excursions. **Historic** and archival locations (one of the **4 corners of the Earth, Viking Settlements**, etc.) are within 2 day excursions. This city, **famous** for its **hospitality, music and culinary experiences** is a quick trip across the Atlantic from Europe, and easily accessible from all other parts of North America, and the globe, by air. St. John's is also home to **internationally recognized centres in aquaculture and fisheries science**, with Memorial University's Fisheries and Marine Institute and Faculty of Science leading the way.

Aquaculture Canada and WAS North America 2020 is the place to learn about the latest in aquaculture, see the newest technology in the trade show, and have a great time in the many fantastic restaurants and entertainment sites that St. John's and Newfoundland and Labrador have to offer.

We look forward to showcasing St. John's and the surrounding area to delegates.

A CRITICAL TRADE SHOW FOR AQUACULTURISTS!

With 130 booths, Aquaculture Canada and WAS North America 2020 will have the largest aquaculture trade show in Canada! This is your opportunity to see the latest in products and services for the aquaculture industry. It is the place to visit current suppliers and make new contacts. To grow your business and keep pace with the technological advancements in the industry – this is the time and place to do it!

George Street Photo: Michel Rathwell, Flickr



SOCIAL EVENTS

The program will include engaging and exciting *social and networking events* to enhance your experience and business opportunities. Meet old friends and new acquaintances, relax and enjoy yourself in the best of hospitality and entertainment that Newfoundland and Labrador, and St. John's have to offer. Events being planned include the Welcome Reception to open the conference, the AAC annual Dr. Joe Brown BBQ in support of aquaculture students, a Newfoundland Kitchen Party, and finally a evening Gala dinner. **Details and costs of these events to be confirmed soon.**





TECHNICAL PROGRAM COVERS THE LATEST RESEARCH

The Aquaculture Canada and WAS North America 2020 program committee is building an extensive technical program featuring special sessions, and various symposia and workshops on all of the species and issues facing aquaculturists around the world. Sample topics will include:

Special Topics

Cleaner Fish
Fish Welfare
Aquaculture Monitoring Technologies
Aquaculture Biotechnology
Fish and Shellfish Physiology
Recirculating Aquaculture Systems
Mussel and Oyster Culture
Sea Lice: Control and Mitigation
Public Perception and Trust
Indigenous Partnerships / Engagement
Law, Regulations and Policy
Human Resource Challenges
Marine Safety / Regulatory Requirements
Communications and Advocacy
Municipal Leader Forum
Governmental Town Hall
CEO's Workshop
Culinary Session
Women in Aquaculture
Innovation Norway: Global Growth and the 'Blue Planet'
Biorefining / Bioprocessing / Valuation
Material Management, Processing and Utilization
Aquaculture Services - 'Show and Tell'
Product Traceability and Food Safety
Aquaculture in an Era of Climate Change
eDNA
Wild-Culture: Ecological Interactions
Wild Culture: Genetic Interactions
Harmful Algal Blooms

The Integration of Offshore Ocean Aquaculture with Renewable and Non-Renewable Resources
Environmental Impact Monitoring
Modelling in Support of Aquaculture Ecosystem Management
Aquatic Invasive Species

Crustaceans

Shrimp Culture
Shrimp Nutrition
Shrimp Health & Disease
Macrobrachium
Other Crustaceans

Finfish

Salmonids
Tuna
Flatfish
Freshwater Finfish (e.g. tilapia, catfish, bass, percids etc.)
Marine Finfish
Larval Fish Culture
Zebrafish
Other Species

Shellfish

Scallops
Oysters
Clams
Mussels
Other Shellfish

Other Species

Algae / Seaweeds
Sea Urchins
Sea Cucumbers
Ornamentals
Endangered Species

Nutrition

Finfish Nutrition
Shellfish Nutrition
Feeds and Feedstuffs
Live Feed (incl. copepod culture)
Nutraceuticals, Probiotics and Clinical Diets
Incorporating Plant-Based Ingredients
Alternative Feed Ingredients
Feed Management and Safety

Aquatic Animal Health and Disease

Parasites
Bacterial Diseases
Viral Diseases
Biosecurity
Epidemiology
Vaccines
Therapeutics and Other Treatments

Production Systems

Open Ocean (Offshore) Aquaculture
IMTA / Integrated Aquaculture
Freshwater Pond Aquaculture
Small Scale Aquaculture and Aquaponics
Urban Aquaculture
Hatchery Technology
Larval Culture / Production

Aquaculture Engineering

Water Quality & Effluents
Recreational and Ornamental Pond Management
Biofloc Technologies and Applications
Fish Transport
Cage Design and Mooring Systems
Land-Based Aquaculture

Genetics and Reproduction

Fish Reproduction
Broodstock Culture, Selection and Management
Shrimp, Finfish and Shellfish Breeding: Genetics
Genetic Engineering

Economics and Marketing

Market Driven Aquaculture: Developing and Sustaining an Industry
Aquaculture Economics
Organic Aquaculture: Future Opportunities
Certification
Risk Management

Global Aquaculture

Latin American and Caribbean Aquaculture
Aquaculture in Asia / Pacific
Aquaculture in India
Aquaculture in Africa

Note: topics may be split or combined based on interest / submitted abstracts.



TENTATIVE SCHEDULE

Sunday, August 30

Registration Open.....	11:00 - 17:30
Exhibitor Move-in.....	11:00 - 18:00
Poster Set-up.....	13:00 - 17:30
Opening Reception.....	18:30 - 21:00

Monday, August 31

Registration Open.....	7:30 - 17:00
Exhibitor Move-in.....	8:00 - 10:00
Poster Set-up.....	8:00 - 10:00
Conference Welcome.....	8:30 - 9:20
Plenary Session.....	9:20 - 10:00
Refreshment Break.....	10:00 - 11:00
Trade Show & Posters Open	10:00 - 18:30
Sessions.....	11:00 - 13:00
Lunch (On your own).....	13:00 - 14:30
Sessions.....	14:30 - 17:30
Happy Hour & Posters.....	17:30 - 18:30
Joe Brown BBQ/Live Auction	18:30 - 23:00

Tuesday, September 1

Registration Open.....	8:00 - 17:00
Plenary Session.....	9:00 - 9:40
Trade Show	9:30 - 18:00
Refreshment Break.....	9:40 - 10:40
Sessions.....	10:40 - 13:00
Lunch (On your own).....	13:00 - 14:30
Sessions.....	14:30 - 17:30
Happy Hour & Posters.....	17:30 - 18:30
NL Kitchen Party 2020.....	20:00 - 22:00

Wednesday, September 2

Registration Open.....	8:00 - 15:00
Sessions.....	8:30 - 9:50
Refreshment Break.....	9:50 - 10:30
Trade Show	9:30 - 12:30
Sessions.....	10:30 - 12:30
Lunch (On your own).....	12:30 - 14:00
Exhibitor Move-out.....	12:30 - 16:00
Sessions.....	14:00 - 17:00
Gala Reception.....	19:00 - 19:30
Gala Dinner	19:30 - 22:30



The Battery neighbourhood with Signal Hill in the background.

Photo: Michel Rathwell, Flickr

CALL FOR PAPERS - DEADLINE: March 18, 2020

Aquaculture Canada and WAS North America 2020 encourage the submission of both high quality oral and poster presentations. All abstracts must be in English - the official language of the conference.

Oral presentations will be 20 minutes. Authors of studies involving proprietary products or formulations should present this information in workshops or the trade show. Oral presentations will be restricted to the use of Power Point. Slides, overhead projectors and video players will not be available or allowed.

All presenters are required to pay their own registration, accommodation and travel expenses. Aquaculture Canada and WAS North America 2020 cannot subsidize registration fees, travel or hotel costs.

No Abstract Book will be printed - The Abstract Book will be available online.

Abstract submission instructions coming soon!



Colourful downtown St. John's. Photo: Michel Rathwell, Flickr

Modernized Aquaculture Policy and Procedures Established to Meet Needs of Growing Industry

The Honourable Gerry Byrne, Minister of Fisheries and Land Resources, today announced the release of modernized aquaculture policies and procedures, including updated policies that set the stage for effectively managing our growing industry to become a world leader in environmentally sustainable aquaculture development. Minister Byrne announced the release during the Newfoundland Aquaculture Industry Association's 2019 Cold Harvest conference, taking place this week in St. John's.

Feedback to inform the policy updates came from a recent public consultation process that engaged industry stakeholders, Indigenous Governments and Organizations, and the public. This process brought forward concerns related to the aquaculture sector, including disease, waste management, potential impact on wild fish and habitat, and increased standards for auditing and inspections.

Highlights of the updates include:

- Policies that focus on industry accountability, environmental stewardship, and best practices that adhere to, or exceed, industry standards;
- A strong, public reporting policy that enhances industry accountability and public trust;
- Clearer expectations around the selling and buying of licenses and sub-leasing processes; and
- Security bonding for any environmental remediation resulting from aquaculture activity.
- Aquatic animal health measures to mitigate disease have also been adopted, including:
- Requirement for licensees to have a detailed fish health management plan;
- Net washing procedures to ensure full sanitization of nets; species and site separation;
- Finfish and shellfish surveillance measures to ensure regular and publicly reportable diagnostic testing; and
- Biosecurity auditing of aquaculture facilities, sites and

activities to ensure world-class biosecurity standards are maintained.

- More stringent standards will also be adopted for public communication by aquaculture companies regarding escape and disease events, and compliance.

These changes guarantee open, transparent, accountable and biosecure environmental stewardship, with established, clear processes and expectations that support social license and sustainability.

The policy and procedure review for aquaculture are part of the Provincial Government's commitment outlined in The Way Forward on Aquaculture Sector Work Plan. These initiatives will support aquaculture sector growth and food self-sufficiency targets in meeting potential growth targets of 50,000 tonnes of Atlantic salmon and 10,750 tonnes of blue mussels annually.

"Newfoundland and Labrador continues to hold its own as a world-class leader in aquaculture health and production. Our position on the world stage has been strengthened as a result of definitive, constructive and positive feedback from all stakeholders, resulting in enhanced policies and regulations that have been modernized to meet the needs of our growing industry. Public trust and confidence are central to successful food production in the world marketplace – our robust policies and regulations are recognized by industry not as inhibitors, but as key to ensuring the ongoing success this industry can achieve."

Honourable Gerry Byrne

Minister of Fisheries and Land Resources

The aquaculture policy and procedure manual can be found at: <https://www.fishaq.gov.nl.ca>

Media contact: Linda Skinner

Fisheries and Land Resources

709-637-2284, 632-8167 • lindaskinner@gov.nl.ca

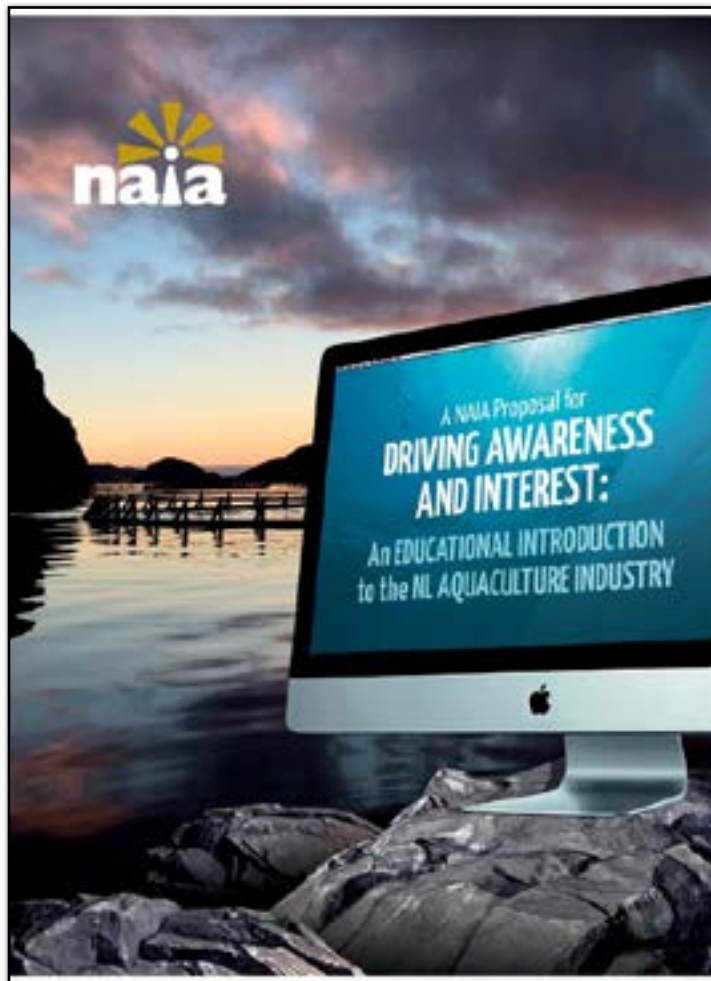
Source: www.releases.gov.nl.ca ✨

AQUACULTURE 101

NAIA is happy to announce a new project undertaking entitled: Driving Awareness and Interest: An Educational Introduction to the Aquaculture Industry in NL. NAIA recognizes that to continue creating growth of the aquaculture industry in the province, increasing the levels of engagement with the public (awareness, understanding and interest) will be essential.

In partnership with Learning Labs, the project will include the following:

1. Aquaculture 101 Online Course: Developed for those interested in a career in aquaculture, this publicly accessible online course will be hosted on a NAIA branded e-learning platform.
2. Immersive Introduction to Aquaculture: Developed with the general public in mind and to engage youth in both primary and secondary school, the project will involve the creation of virtual reality simulations that highlight the existing opportunities in the industry, and the cutting-edge methods of modern-day aquaculture in Newfoundland and Labrador.



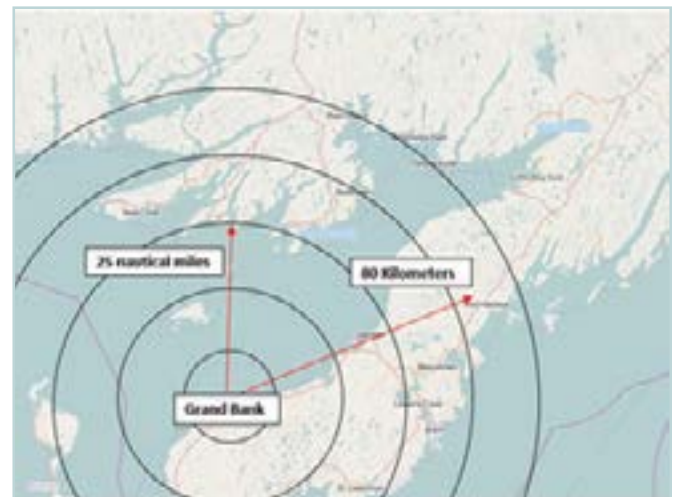
3. Informative Public Website and e-Learning Platform:
 - A direct link to the Aquaculture 101 course
 - A job postings page that will reinforce the sector's continuing growth
 - Information on the Virtual Reality programming

This project is in alignment with the Provincial Government's The Way Forward on Aquaculture Work Sector Plan, Aquaculture Recruitment and Retention Strategy, and the NAIA Youth Engagement Strategy. ✨



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AQUACULTURE PROFESSIONAL PROFILE



Osama Ali

Location: Marystown, NL • Current Employer: Grieg Sea Farms Ltd.

Job Title: Water Quality and Waste Management Specialist

I live in Lawn which is a small community located on the Burin Peninsula in Newfoundland and Labrador. I am originally from Jordan, but I have been living in Newfoundland for over 10 years now. I moved to Newfoundland to

complete my PhD in Chemistry at Memorial University. After completing my PhD, I worked as a post-doctorate researcher before moving to the Burin Peninsula. Most of my work experience and background has been in roles related to research and analytical fields. Immediately, I became interested in using my skills and knowledge in industry related fields and worked in roles related to water quality and in the fisheries sector.


In 2018, I started working as a Water Quality and Waste Management Specialist with Grieg NL and have been in this rewarding role ever since. At this stage of the development my role primarily focuses on conducting research, consultations, and working with our team to provide guidance on equipment

and best practices with regards to water quality and management of waste including sludge and ensilage. Most of my work now is based out of the office however, in the future I will be working in the land-based RAS facility.


Although I have experienced many interesting things while working in my current role, one of the most interesting things that I have experienced is learning about all the state-of-the-art and innovative technologies that are currently available and being developed in the aquaculture industry. It is amazing to see the valuable work being done in research and innovation, as well as the important impact it has on creating and promoting a sustainable aquaculture industry.

I find it extremely rewarding to know that I am working with such a dedicated, talented and supportive team while applying my knowledge and skills to such an important industry. In any job there are challenges and hurdles to overcome particularly in the planning and development phase. However, I think that's where the importance of a great work team comes in play which is what we have here at Grieg NL.

I would advise anyone interested in this industry to learn as much as you can about it. I would recommend you learn about the numerous career options that are available in the aquaculture field, the benefits and rewards of working in such a valuable interesting field. I would also suggest that if possible, you participate in opportunities to experience the aquaculture industry first hand. ✨




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Newfoundland and Labrador aquaculture industry welcomes enhanced policies and procedures

Nov 8th, 2019 – St. John's, Newfoundland and Labrador - The Newfoundland Aquaculture Industry Association (NAIA) welcomes the new policies and procedures implemented by the Government of Newfoundland and Labrador, that are focused on enhanced public reporting while supporting the environmentally responsible growth of our industry.

"Marine aquaculture is a highly innovative and technologically advanced food production industry. We embrace regulations, policies and procedures that are based on science and practicality which further enable transparency, continuous improvement and environmental protection," said Mark Lane, Executive Director of NAIA.

Through *The Way Forward – A vision for sustainability and growth in Newfoundland and Labrador*, the provincial government set a target to double salmon production to 50,000 metric tonnes (MT) and triple shellfish to 10,750 metric tonnes (MT) annually.

"On behalf of NAIA's 130+ members and the thousands of people working directly and indirectly in seafood farming, I thank Premier Dwight Ball, Minister Gerry Byrne and their government for acknowledging the great economic and social importance of aquaculture to the province and for demonstrating leadership by recognizing the tremendous opportunity that aquaculture presents for people living in rural coastal communities in Newfoundland and Labrador", expressed Lane.

"We are committed to continued collaboration with provincial, Indigenous and non-government partners to review and modernize legislation, regulations, policies and procedures to keep this province's seafood farming business competitive, sustainable, innovative and growing. These actions are key to ensure we have the highest regulatory standard possible," adds Lane.

"Although we still require clarification on particular aspects of the newly implemented policies and procedures, upon initial review we are confident that we can work with these regulatory changes -- our industry is well-positioned to seize the opportunity, create more new business opportunities and create more jobs," explains Lane.

As the global population continues to grow and the demand for nutritious and safe seafood surpasses the oceans wild fishery capacity, aquaculture continues to grow to fill the gap. The majority of seafood consumed worldwide is now farmed.

For more information:

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mark@naia.ca
www.naia.ca

Cooking with Chef Steve Watson

Steamed NL Blue Mussels with Garden Fresh Mediterranean Ratatouille

Ingredients:

3 lbs. fresh NL Blue Mussels
3 tsp. Olive oil
1 Onion, thinly sliced
Garlic cloves, peeled and sliced
1 small Bay leaf
2 small Zucchini, halved lengthwise and diced
250 gr. Button mushrooms
1 Red bell pepper, cut into slivers
4 Plum tomatoes, coarsely chopped (approx. 1¼ cups)
1 tsp. kosher salt
½ cup Shredded fresh basil leaves
Freshly ground black pepper
½ cup White Wine

Directions:

Over medium-low heat, add the oil to a large skillet with the onion, garlic, and bay leaf, stirring occasionally, until the onion has softened. Stir in the zucchini, red bell pepper, mushrooms, tomatoes and salt, and cook over medium heat, stirring occasionally, for 2-3 minutes

Add the NL blue mussels and white wine and cover. Steam until the mussels open, add basil and a few grinds of pepper to taste. Serve with garlic bread and enjoy! ✨



Chef Steve Watson served as an apprentice in London, and worked in Scotland, Belgium, France and Germany before moving to Canada in 1977 to study North American cooking. He taught culinary arts at the Cambrian College in Sudbury, ON before joining the Canadian Pacific Hotels chain in 1988. He recently retired as Territory Sales Manager and Executive Chef with Agropur, and has taken on a new passion of working as a tour guide with McCarthy's Party in St. John's, NL. He's also a devoted family man and a prominent member of the local community. Steve epitomizes the definition of a volunteer, including his work with NAIA and his quarterly submissions to the Cold Harvester, and spends countless hours giving back to the people of a province he now calls home. ✨



Couturier on Culture

Point of View - Aquaculture Reduced to a Political Football

Cyr Couturier is an aquaculture scientist and chair of the MSc Aquaculture program at the Fisheries and Marine Institute of Memorial University. He has 35+ years of experience in applied research and development, training and education in aquaculture and fisheries. He has been an observer of government policies for over 3 decades. He has been, and is a Board and Executive member of several aquaculture & development associations, including CAIA (Chair of the Board), CAHRC (Chair), past president RDÉE TNL, past RDÉE Canada, past president AAC, past president NAIA, etc. He has worked in aquaculture and fisheries development in over 18 countries. The views expressed herein are his own. Contact: cyr@mi.mun.ca or follow on Twitter @aquacanada



By: Cyr Couturier



(NOTE – article originally published in *Aquaculture North America*, Dec/Jan 2020 edition; used with permission)

Aquaculture in Canada has just gone through the “silly” election season, as some refer to it.

The federal election on 21 October 2019 saw three federal parties, including the incumbent party, promise to put BC salmon net-pen farming into closed containment no later than 2025. This was pure politics, designed to gain support in hotly contested electoral districts. Funny thing is, not one party actually provided a plan as to how this could be done. The average Canadian would not really understand this nor would they understand why such a policy would even be coming during an election period. Why anyone would propose a policy that will increase greenhouse gas emissions in today’s world of climate change is beyond me.

Moving to closed containment is something that realistically

cannot be done in the period of time committed—which is roughly six years—regardless if there was a real intent to do so (thus, the reference to the silly election season). One would be hard pressed to find backers given the energy costs, increased carbon impacts, market access issues, land costs, costs to First Nations’ sovereignty and negotiations required to put installations on unceded land, not to mention loss of sustainably farmed seafood in high demand around the planet. I doubt if the Province of British Columbia would step in and take charge of regulating the sector. As some may recall, the province refused to defend and argue to keep it under its jurisdiction in a court challenge not too long ago.

I also doubt whether the politicians understand that laws would have to be created or probably repealed in order to designate net-pen farming as not permissible under the Fisheries Act. Moreover, an “on land” move would result in upwards of 7,000 Canadian jobs lost to the rural, coastal economy of British Columbia if this were to come to pass in the next six years. If it was all moved to land (paraphrasing policy here), who would be in charge of regulating it? Would it be the province? At the moment the Federal Regulator (Fisheries and Oceans Canada or DFO) regulates aquaculture in the public coastal waters of the province. Would DFO be willing to give up its control? Is that the intent of these spurious election promises?

The policy to move to closed containment is directed on British Columbia, Canada’s largest producer of farmed salmon. What if the ruling party decided to move the entire sector across the country onto land? What message would that be saying to the 25,000-plus Canadians working in 10 provinces and one territory, and to over 40-plus First Nations with whom partnerships are already established? All of this year-round employment is based in much needed, resource-replete areas of the country. In any event, these sorts of promises made during

an election campaign are often made in haste, not thought-out, and for simple political gain, without any thoughts of the people they will affect. It truly was a silly season, and unfortunately Canadians and their families suffer when these platforms are espoused, even if done purely for political gain.

It is unfortunate that aquaculture in Canada has become a matter of “political football,” kicking it away as if it was an incurable contagion. It is too bad because Canada once was, some 40 years ago, in the top 10 fishery nations in the world. We could regain former glory for the sake of our rural economy, with the help of a sector that can and does farm responsibly in our oceans. If Norway, Scotland, Iceland and Australia can do it, why can’t Canada “own” the sector? Interestingly, this debate has been ongoing for nearly 40 years. The feds recognized in a national forum in 1983 (led by DFO) that the laws

of the land do not recognize aquaculture as a legitimate endeavor in coastal areas of the country. Since then, innumerable studies by parliamentarians have been conducted, successive federal regulators have recognized the need for a policy on aquaculture, starting with the Aqua Strategy 1995 by the then DFO Minister Brian Tobin, culminating by yet another study by parliamentarians of all parties in 2015-2016. That umpteenth study concluded that aquaculture needs to have its own Act, in collaboration with the Provinces as full partners, and should provide support to farmers of the sea for innovation and so on. Yet here we are being kicked around the country like a football while the rest of the world embraces fish farming as the future of food (incidentally, 180 plus nations around the globe apparently do as well, according to the United Nations). ✨



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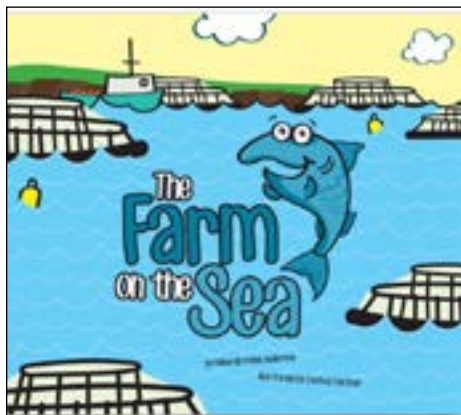
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New Book Teaches Kids about Salmon Farming



New Brunswick journalist Deborah Irvine Anderson has debuted a new children's book about salmon farming. *The Farm on the Sea*, written by Irvine Anderson and illustrated by New Brunswick artist and graphic designer Lindsay Vautour, is the story of a rare blue salmon named Sunny who guides children through the stages of salmon farming. It's aimed at readers from ages six to eight.

Proceeds from the Christmas sales of *The Farm on the Sea* will be donated to CBC's annual Harbour Lights Campaign that raises money for food banks across southern New Brunswick.

"Children need to know where their food comes from. More than half of the seafood we eat today comes from aquaculture. Children are often taught about farms on land but not about farms on the ocean," says Irvine Anderson, who was inspired to write the book after touring a farm a few years ago.

A launch event for *The Farm on the Sea* will be held at Indigo Saint John, NB on Saturday, November 23, 2019 from 11 am to 1 pm where the public can meet the author and illustrator. Cost of the book is \$5.

"I had no idea that farmed salmon was the biggest agriculture-based export in Atlantic Canada. It rivals the iconic potato in my home province of New Brunswick: yet, many people have no idea how it's

farmed," said Irvine Anderson. "I grew up reading books about potato farming and other farming on land. I wanted to write a book that I could read to my own children about a farm on the sea."

Irvine Anderson approached the Atlantic Canada Fish Farmers Association (ACFFA) with a book proposal.

"We loved her idea and her passion for educating children about salmon farming," says Susan Farquharson, ACFFA's Executive Director. "The book is engaging and informative, and our members are proud to partner with the book's creators on this project and to raise money for local food banks too."

"As a former journalist and producer at CBC Saint John, the Harbour Lights Campaign is near and dear to my heart. I'm thrilled that proceeds from this book will be going to such a terrific cause," says Irvine Anderson.

Copies of *The Farm on the Sea* will be available for purchase at Indigo in Saint John after November 23 and can also be purchased by contacting ACFFA at 506-755-3526 or via email: info@atlanticfishfarmers.com. ACFFA gratefully acknowledges the NB Department of Agriculture, Aquaculture and Fisheries for its support of this project.

Irvine Anderson, a Quispamsis resident, is a veteran journalist with a passion for people and sharing their stories. She spent more than 20 years at the CBC both behind the scenes and on-air, leading award-winning newsrooms from coast to coast. She has worked in newsrooms from PEI to BC, becoming the youngest Executive Producer at the CBC when she returned home to Saint John. While at the CBC, she also worked as a morning host and newsreader for the local and provincial morning and afternoon shows, producing the popular feature Deborah

Discovers. She now teaches marketing and communications at the New Brunswick Community College in Saint John.

Lindsay Vautour is an award-winning graphic designer, artist and illustrator whose work has been featured regionally, nationally and internationally. For the past eight years, she has created all the communications materials for ACFFA and worked on a variety of other projects in the aquaculture industry. A Rothesay resident, Vautour operates her own design and branding agency Pop Studio and is the Art Director of *The EDIT* magazine.

"I've learned so much about salmon farming since I started working in this sector. Many people don't know how salmon are farmed and don't realize how many aspects this industry includes – from hatcheries and marine farms to research labs and processing plants," says Vautour. "I loved creating Sunny the Salmon, and I know this book will be educational for both children and their parents alike."

The Atlantic Canada Fish Farmers Association (ACFFA) is an industry-funded association working on behalf of Atlantic Canada's salmon farming industry in addition to a wide range of service and supply companies and organizations. Salmon farming employs over 4000 people in our region and has a value of over \$400 million to provincial economies.

For more information, contact:

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Susan Farquharson

ACFFA Executive Director

506-755-3526

info@atlanticfishfarmers.com

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The Newfoundland Aquaculture Industry Association (NAIA) offers a constructive and personalized approach to help you develop positive relationships with experienced, reputable local partners. Please contact NAIA to learn how we can help.

For more information contact: Mark Lane, Executive Director
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