The Cold Harvester

Newfoundland Aquaculture

SPRING 2025

CHOOSE CANADIAN SEAFOOD

IN THIS ISSUE...

Tariff Concerns *Member Updates*

Seaweed Advancements in NL

Newfoundland and Labrador
Aquaculture Industry Association

Cold Harvest 2025

30th ANNUAL CONFERENCE & TRADE SHOW

Sheraton Hotel • St. John's, NL Canada

September 23rd – 25th, 2025

On behalf of the Newfoundland and Labrador aquaculture industry, we invite you to join us for our 30th Annual Cold Harvest Conference and Trade Show. Cold Harvest is a premier Canadian aquaculture conference, focused on promoting and developing the business of aquaculture for the prosperity of our sector and our communities.

The conference offers exciting and informative discussions related to aquaculture and its potential in Newfoundland and Labrador. With world-class keynote speakers and guests, and themed sessions related to aquaculture innovation, technology, science and service sector advancements, this event should not be missed.

Visit **www.coldharvest.ca** to learn more.
For enquiries, please contact: Roberta Collier at 709-538-3454 or E: roberta@naia.ca

In this Issue

SPRING 2025

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Message from President and Chair of the Board

Sheldon George

Hello Cold Harvester readers, and welcome to the Spring 2025 edition. Spring, time for a new stock of crops, a fresh start, and new beginnings. This year at NAIA we have had a really fresh start with our new Executive Director, Keith Sullivan. I would like to take this opportunity to welcome Keith to NAIA, and I look forward to working with him as we tackle many of the obstacles facing our Newfoundland and Labrador aquaculture industry.

A carryover from the last edition of the Cold Harvester, a major issue the industry is dealing with continues to be the unknown consequences of establishing a National Marine Conservation Area on the south-west coast. We still need further public meetings in communities such as Harbour Breton, Hermitage-Sandyville and St. Alban's. There are still many questions that need answers for not just aquaculture companies, but for mining companies, the fishing industry and so on. There are many activities that will be affected once these NMCA's are in place, and we cannot wait until they are in place to figure out answers. I know Keith and all the NAIA board and staff, as well as many members of NAIA, have been spending a lot of time on this topic, and there is much more left to get done. I urge all residents in areas where aquaculture operates to ensure they get up to date on the facts about this NMCA, and do not be shy to speak up for the economics of your area.

I have recently visited various farms of different companies, and to see how enthusiastic people are about growing fish, and the pride they portray when they care for their crops is unbelievable. People who have never visited a farm have no idea how these fish are cared for while growing to market size, and how all staff work every day to nurture these animals and ensure they fish are grown to the best of their ability in a sustainable way. Hats off to all the farmers in Newfoundland and Labrador and globally, your work often goes unappreciated by the consumers. Please keep up the great work, the world needs your delicious product on their tables.

Now along with the NMCA's there are talks of tariffs from President Trump. This is the perfect combination to make investors concerned about investing in our province. The province's aquaculture industry is faced with a tremendous amount of uncertainty at the moment, and our companies are starting to feel the consequences. Global companies are questioning whether they should finance capital expenditure projects in Newfoundland, where there is uncertainty, or do they direct the money to another place in the world where they have a higher guarantee that it will result in growth for the company, instead of wasted in an area they either cannot farm or are taxed too much. I wish all the company's luck in being able to navigate these uncertain times and when it does pass, as it will pass, that the companies are still here in NL operating. The Newfoundland aquaculture industry has the support of the provincial government, and I am sure with their cooperation and dedication our industry will become stronger.

In conclusion, in saying we have the support of our province, a big part of that support comes from Premier Furey. It was sad news when premier Furey announced that he would step down from his duties for our province, as he was a very vocal supporter of our industry. I want to take this opportunity to thank Premier Furey for all he has done for our industry, we appreciate it tremendously. I hope whoever takes over the new role of Premier is just as strong a supporter as he was, if not even stronger. Now is our time to shine as global seafood suppliers, and what a great time for a new leader to take over and attack these challenges with new eyes and fresh energy. I look forward to meeting and working with Furey's replacement and overcoming these issues together. It's not the issues we face that determine our destiny, it is how we respond to these issues. Many times, our responses make us more resilient and stronger, and that is how we need to move forward. Let us work together to establish an NMCA that is the perfect size to satisfy all stakeholders and find ways to overcome tariffs, so we become more efficient and secure, as we still have lots of water to farm, and many mouths to feed globally. Thank you.

Message from Executive Director

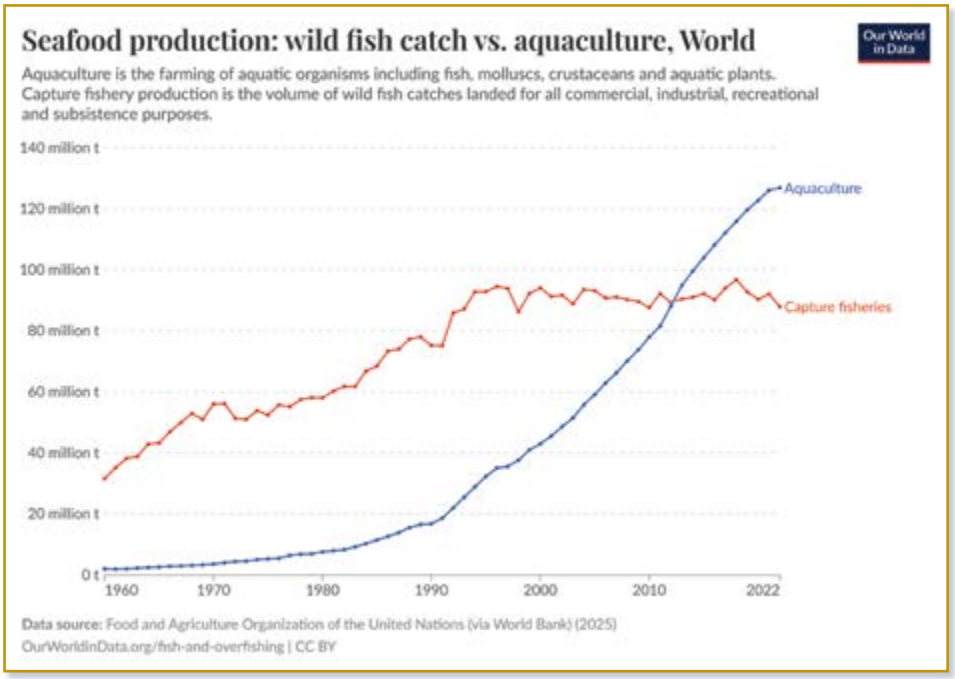
Keith Sullivan

I am grateful to be a part of the budding aquaculture industry in Newfoundland and Labrador. The reason why I chose to pursue studies in aquaculture 20 years ago was due to its enormous potential. The reason I return to aquaculture is because that potential and opportunity for growth has seen a remarkable increase.

Global statistics from the UN demonstrate that global aquaculture production surpassed wild harvest in 2022. We will need continued growth to provide future generations with healthy and sustainable protein options. It helps that we have delicious options!

Canada, and Newfoundland and Labrador in particular, is naturally poised for growth with the right strategy and supports. It is staggering to think that Canada has the longest farmable coastline in the world and only contributes about 0.1 percent of global aquaculture production.

Norway, which is often looked at for parallels with Newfoundland and Labrador produced about 1.6 million metric tons of salmon in 2022; approximately 80 times the production of NL. Another comparison is the Faroes, the small autonomously governed islands of Denmark with a population of approximately 55,000 people produces close to 5 times the amount of NL. This example specifically highlights salmon but the same growth opportunities



exist for trout, mussels, oysters and seaweeds.

There are numerous reasons why Newfoundland and Labrador is an ideal location to grow aquaculture. The biological considerations in our province are exceptional. The people in our province are educated, skilled and knowledgeable about their ocean and fish. Leadership in our industry, including with NAIA, is second to none. We have a highly skilled support services sector. We have the support and expertise of Memorial University including the Fisheries and Marine Institute and the Ocean Sciences Center. We continue to have provincial and municipal government leaders who know the importance of the aquaculture industry to our coastal communities and support it.

While there are countless opportunities, there are obstacles as well. Many of these are artificially created. The tariff threats from U.S. President Donald Trump are wreaking havoc on supply chains and partnerships developed over decades. It is difficult to write something applicable on tariffs for this magazine because the ground shifts daily. However, the one consistent theme on tariffs is the severity of the threat and potential impact on our businesses as about half of our farmed seafood destined for the U.S., whether salmon, trout, mussels or oysters. NAIA has remained engaged at all levels of discussion relating to solutions through the Premier's Roundtable and other

CONTINUED 6

Nova Scotia hosted their annual Sea Farmers Conference on February 5-6 in Halifax. It was an impressive event with a fantastic exchange of information and opportunities to network. There are numerous connections between our provinces and many of the opportunities and challenges are like those faced by NAIA members. Photo R to L: Jeff Bishop (Executive Director - Aquaculture Association of Nova Scotia), and Keith Sullivan (Executive Director-NAIA)

venues both federally and provincially.

The threats by an erratic US President may be difficult to control, however, there are obstacles that can be controlled. Governments must quickly find ways to help industries threatened by these massive tariffs.

There are things that can be done to help aquaculture continue to provide food security globally and at home in Canada. At the moment, aquaculture operations are being threatened by an ill-advised National Marine Conservation Area initiated through Parks Canada and being pushed by international activists. This closed area could shut down many of the main industries that are the backbone of communities on the south coast such as fishing, mining and aquaculture. This closed area could be massive (6,491 km^2); up 6 times the size of all Conception Bay for some local perspective.

Governments must work hard to support those boldly investing to develop our iconic oyster industry and not throw up roadblocks to development. We are facing challenging times, and we need governments to fully support the people growing salmon, trout, mussels, oysters and seaweed in this country.

Following the engagement on Canada's Blue Economy Strategy, DFO stated, *"It was thus recommended that we should support the economic development of new aquaculture species and promote the essential role of aquaculture in sustainable domestic and global food production—and the future economic prosperity of coastal communities."*

This is the responsibility of all government departments working in collaboration with industry experts. To talk about promoting aquaculture and coastal communities in one breath and have another government department hatch schemes that do the opposite is not acceptable. A huge closed marine area on the south coast of Newfoundland is a route to hardship and not prosperity.

Cold Harvest 2025 will take place September 23-25, 2025 at the Sheraton Hotel in St. John's. This year marks the 30th anniversary of our conference. We are preparing a program and event that will be both insightful and celebratory. As always, it will be a great place to catch up with old friends, make new ones and of course, grow your business.

It will also be a time to celebrate the pioneers of aquaculture in Newfoundland and Labrador and focus on building upon the foundations they have laid.

I look forward to continuing to meet and work with you all in the weeks and months ahead.

High School Graduating Students 13th Annual Scholarship

The Newfoundland Aquaculture Industry Association (NAIA) is pleased to announce its 13th Annual Scholarship for students graduating from high schools in Newfoundland and Labrador. A scholarship, valued at $1000, will be awarded to a student pursuing a post-secondary education in marine or aquatic related studies. (Sustainable aquaculture, marine biology, marine environmental technology, ecology, nautical science, engineering, etc.)

Eligibility:

To be eligible, you must be graduating in 2025 and entering your first year of University or College.

Evaluation Criteria:

Based on academic achievement, references, level of community involvement and volunteerism.

To Apply, Please Submit the Following:

1. Completed Application
2. Resume and Cover Letter outlining why you should be the successful recipient.
3. Two Reference Letters: Academic (1), and Personal (1)
4. Recent Transcript

Review Process:

Applications will be reviewed by the NAIA scholarship committee. Deadline for submissions: July 1, 2025. Only those applicants who are successful in their application will be notified.

Please submit application, resume, cover letter and two reference letters to:

NAIA Scholarship Committee
c/o Keith Sullivan
Newfoundland Aquaculture Industry Association
10 Austin Street, Suite 201
St. John's, NL A1B 4C2
Email: executivedirector@naia.ca

DOWNLOAD APPLICATION

MEMBER PROFILE

TRUEFOAM NEWFOUNDLAND

TRUEFOAM NEWFOUNDLAND
Dominic Street, Industrial Park
Bishop's Falls, NL, A0H-1C0
www.truefoam.com

Newfoundland Styro was established in 1996 in Bishop Falls, central Newfoundland by TRUEFOAM, a maritime EPS insulation and packaging manufacturer. TRUEFOAM wanted to expand to Newfoundland and saw value in establishing a plant in central Newfoundland to meet the growing needs of the building supply and fisheries industry.

Since established, the company has been the primary supplier of EPS packaging solutions and accessories to Newfoundland and Labrador's fishing and aquaculture industries. Our packaging made by Newfoundlanders for Newfoundlanders is instrumental in helping the region export world class seafood products to markets overseas.

The strategic alignment of our four plants in the Atlantic Region—Dartmouth, Yarmouth, Fredericton, and Bishop Falls, NL—will enable TRUEFOAM to build on its 56-year reputation for delivering high-quality products available locally in each market. This consolidation will enhance the ease with which our clients can do business within the region and improve our service delivery. We look forward to serving our customers for many years to come with the products Atlantic Canadian producers have depended on to protect their exports for over 50 years.

TRUEFOAM is investing in the future. Collaborating with packaging industry innovators we are working on more sustainable products and services. As the industry evolves TRUEFOAM is committed to being at the forefront of innovation. We are making new investments to increase our capacity in Newfoundland to deliver the quality products we are known for.

On behalf of the entire TRUEFOAM team, I want to thank you for your continued support of our business. We look forward to living up to our brand promise by delivering quality products through strong partnerships and local delivery, ensuring high availability and creating real value for our customers.

MEMBER PROFILE

AQUATIC VENTURES

Samuel Anderson & Jennifer Brake
11 West Valley Rd., Corner Brook, NL, A2H 2X2
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Canada

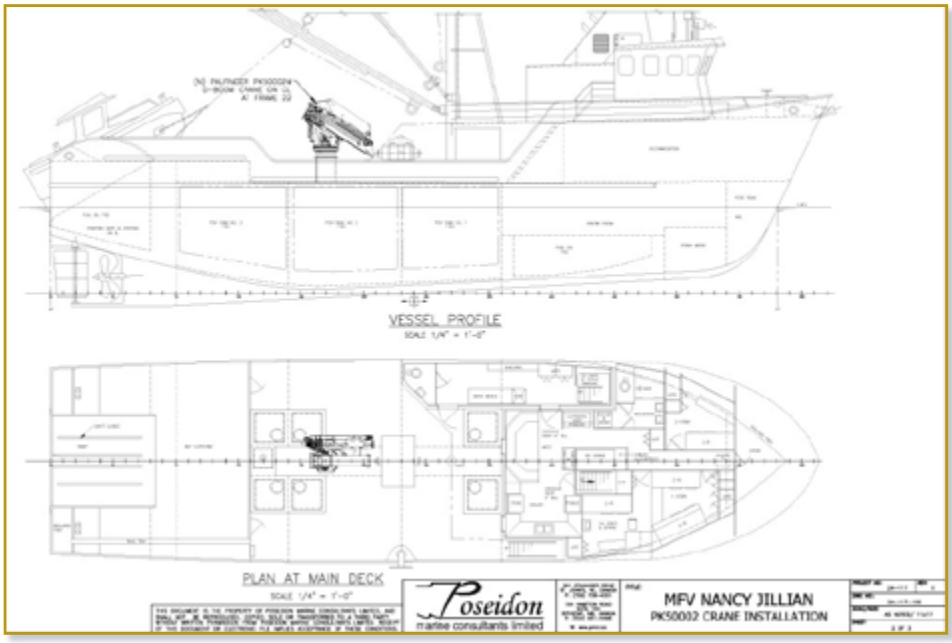
Aquaculture service vessel inspection safety certificate.

We are a family-owned business operating a 32m dual certified fishing/workboat (aquaculture/fisheries science) strategically located in Western Newfoundland - 24 hours from aquaculture sites in Newfoundland or the Gulf of St Lawrence, and 48 hours from Bay of Fundy/American seaboard. We have worked in the aquaculture space over the past 20 years doing live smolt transfers and mortality hauls and are eager to be involved in more logistical, maintenance and construction work.

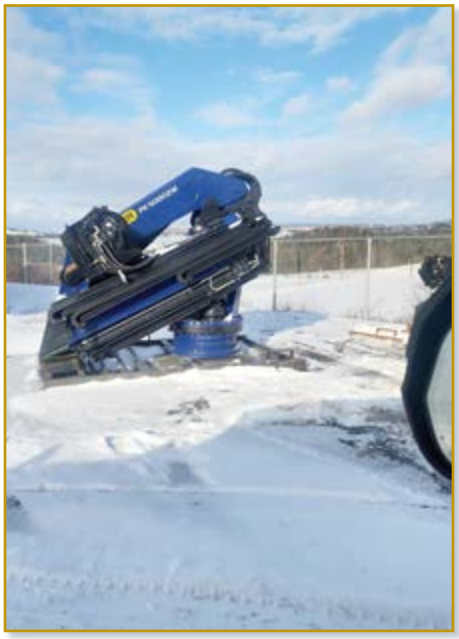
Coming into Red Bay Labrador.

Vessel attributes and capabilities:

- 250m^3 in 6 RSW tanks
- 150m^2 of open deck space
- Type certified Palfinger PK50002M articulating crane with 14m outreach
- PTG FrioNordica 250kw RSW (71 tons of cooling)
- Transvac 12" live fish transfer pump and Karmoy 12" submersible fish pump
- Accommodations for 9 crewmembers in 4 cabins with 3 washrooms
- 16 tonne main winch with many auxiliary winches, cranes and booms
- Transport Canada Workboat certificate (Aquaculture/Fisheries Research)
- Simrad EK80 scientific splitbeam (38/200khz) ecosounder, Furuno multibeam sounder and MAQ 5000m 45kz omnisonar.



General arrangement.



The new Palfinger type certified crane PK50002M.

NEWFOUNDLAND AQUACULTURE INDUSTRY ASSOCIATION
Welcome New Associate Members!

Susie Greene
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sgreene@hnl.ca • www.hnl.ca

Hospitality Newfoundland and Labrador, established in 1983, is a non-profit membership association that leads, supports, represents and enhances the province's tourism industry.
Hospitality NL has been the voice of the provincial tourism industry since the association was founded. It's work on behalf of members and the industry itself has played a crucial role in developing the tourism industry into the flourishing economic driver that it is today.

Mark Beaven
40193 Blythe Road, Blyth ON N0M 1H0
mbeaven@ethoguard.com • www.ethoguard.com

EthoGuard is Canada's leading biosecurity solutions provider. In addition to being the Master Distributor for Prevail Disinfectant, we provide a full range of cleaning and disinfection equipment and Personal Protective Equipment (PPE) to the agricultural and food industries. Our team also partners with some of Canada's leading agri-food producers, providing biosecurity guidance and technical expertise to ensure a safe and secure farmed-animal health system in Canada. Located in Blyth, Ontario we offer our products and services either directly to end-users or through our 45+ Distributors across Canada.

For more information on Membership Benefits, contact Roberta Collier
roberta@naia.ca • visit www.naia.ca

ATLANTIC BLUE MARINE ENTERPRISES INC.
Joel Goodwin
332 Lakeside Road, Yarmouth NS B5A 4K3
atlanticbluemarine@gmail.com

Atlantic Blue Marine is a company that began with small support vessels for Grieg aquaculture out of Marystown with the very first fish that Grieg put into the water. We now have vessels working for OTC, Grieg and WFN in Cape Breton, NS.

NL MARINE SERVICES
John Coombs
PO Box 8109, 1315 Topsail Road
St. John's NL A1B 3N4
JCoombs@oceanchoice.com
www.nlmarineservices.com

NL Marine Services is a vessel support and supply company that is jointly owned and operated by Newfoundland and Norwegian aquaculture services companies. NL Marine Services is dedicated to the continued growth of the province's aquaculture and offshore sectors. With our vessel operations based in the Placentia Bay area and St. John's, NL Marine Services is ideally located to support Newfoundland and Labrador's growing aquaculture and offshore sectors.
With our expanding fleet of service boats and vessels, we offer a wide range of services that are tailor-made to meet the specific needs of our individual clients. We have decades of marine knowledge and experience and our highly-qualified crews are dedicated to meeting the unique needs of our clients. We are committed to conducting our business in a safe and environmentally responsible manner, striving to continuously improve our practices to ensure we are surpassing world class safety, health, and environmental standards.

INTERNATIONAL WOMEN'S DAY

Thank you to all those dedicated women working diligently to ensure a consistent supply of healthy and sustainable seafood for tables here at home in Newfoundland and Labrador and around the world. Keep up the great work and be proud of your contribution to food security in unprecedented times and always. Let's show our gratitude to everyone involved from egg to plate!! THANK YOU!!


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ASL Environmental Sciences: Ocean Wave Measurements at Aquaculture Sites

By: Rick Birch, Keath Borg, Ben Garrett of ASL Environmental Sciences

Ocean wave data is often required for the design of cages and other mooring infrastructure at marine aquaculture sites. The most common method to collect wave data is with surface buoys, however these buoys are often large, difficult to deploy and recover, and expensive.

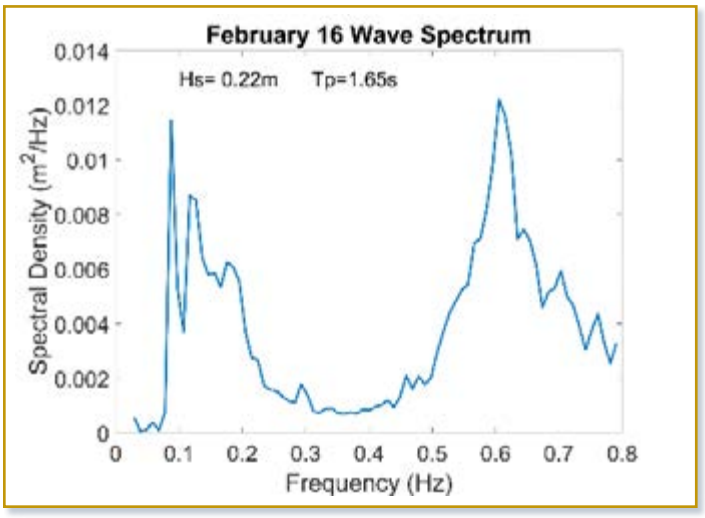
Several years ago, SOFAR introduced the Spotter wave buoy. The buoy is small, inexpensive, solar powered and easily deployable. Initially they were used primarily in a free drifting configuration, and hundreds have been cast adrift in the world's ocean reporting wave data in near real time.

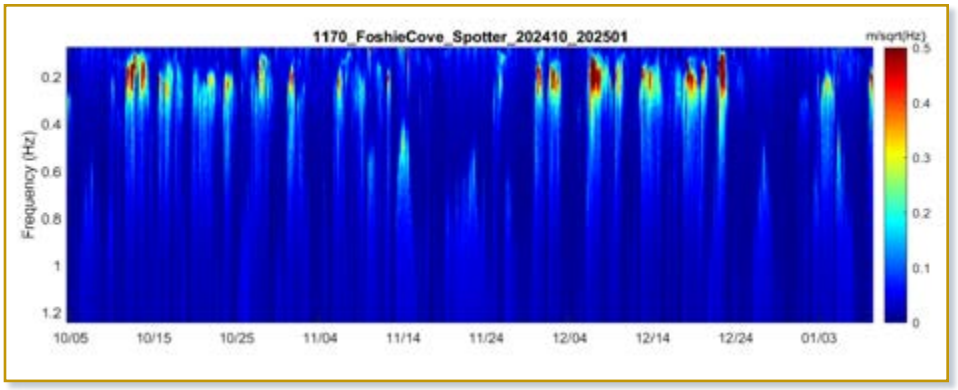
The Spotter buoy measures waves using GPS and inertial measurements at 2.5 Hz frequency. Wave parameters such as significant wave height and peak period are calculated every 30 minutes and are available via cellular or iridium satellite communication. The frequency range is stated as 0.03 – 1 Hz (1 – 33 sec period), with an accuracy of – 2 cm.

ASL started using Spotter buoys in a moored configuration in 2021. The mooring design focused on isolating the buoy from mooring motion but also minimizing the risk of entanglement of the buoy and the mooring. This was important because our deployment sites were often in coastal inlets where tidal currents were nearly rectilinear.

Spotter wave buoys have been moored in water depths of a couple of hundred meters. The small buoy, as well as the use of lightweight synthetic lines, allow the moorings to be deployed from small boats. Data is generally collected over winter when the largest waves occur.

Wave data are available in real time including wave height (Hs), wave period (Tp) and wave direction.





Following recovery, the raw data are retrieved from the internal memory. The real time feature also allows monitoring of the buoy position, which in one case allowed us to recover a buoy that had been moved off site by a suspect vessel.The raw wave data are then analysed in more detail. Plots of the spectra from each wave burst are generated and reviewed. An example spectral plot shows both a local wind-sea component and a non-local swell component. Unreasonable data is flagged and not used in further analyses.

By plotting the data in the frequency domain, with time on the x-axis and wave frequency on the y-axis, we can see the more energetic wave events (red) and whether they are due to longer period ocean swell waves, or are shorter period waves generated by local winds. In this case successive wave events occurred every few days, but there were also extended periods of low wave activity.

The Spotter wave buoy has proven to be an inexpensive tool for wave measurements at marine aquaculture and other sites.

SOFAR recently introduced a 'Smart Mooring' that allows other sensors such as temperature, pressure, and currents to be integrated into the mooring for data transmission in near real-time. The Bristlemouth initiative has allowed ASL to interface our AZFP-Nano to the Smart Mooring. The Nano is a single frequency calibrated echosounder that is to be used to monitor commercial kelp production. AZFPs (Acoustic Zooplankton Fish Profiler) of various frequencies can also be used to measure plankton, fish, jellyfish, suspended sediment, and other acoustic targets. Learn more at: www.aslenv.com

Seaweed Aquaculture in Newfoundland

Marine Institute - Newfoundland Industry partnership is breaking new ground for seaweed culture in the province.

By: Rafael Sabioni, Senior Aquaculture Technologist, Centre for Aquaculture and Seafood Development (C-ASD), Fisheries and Marine Institute, Memorial University of Newfoundland

Seaweed aquaculture is a long-time established activity in Asia, however it is comparatively new in North America. It's gaining worldwide interest over the past years due to its contribution to the development of the blue economy. The potential for seaweed application ranges from sustainable alternatives for human and animal feed, valuable nutraceuticals and solutions for many conventional product substitutes, like bioplastics.

Kelp is a group of large brown seaweed, including Sugar Kelp (*Saccharina latissima*), the most cultivated species in North America. Most of the kelp species reproduction happens through a heteromorphic (Latin - Different form) cycle, meaning that this kind of seaweed will be found in two different forms along the cultivation process. When mature, kelp blades release motile microscopic spores, that settle on a surface and develop into their first form, the microscopic male or female gametophyte, which will produce sperm and eggs, respectively. Once combined, these will produce their second form, a sporophyte, that will grow and become a new kelp. The knowledge on kelp biology allows researchers and producers to harvest mature kelp, release their spores in a controlled environment and make them settle on a surface, producing the "seeds" that will be easily transferred to the culture lines.

The interest of some Newfoundland companies in developing seaweed aquaculture started a few years ago and, in partnership with the Centre for Aquaculture and Seafood Development (C-ASD) at the Fisheries and Marine Institute and funded by the Canadian Centre for Fisheries Innovation (CCFI) and the Department of Fisheries, Forestry and Agriculture (FFA) NL, the first site assessment, seed production and outgrowing trials were performed. The promising results from these first assessments advanced this partnership for two more seasons of research and achievements.

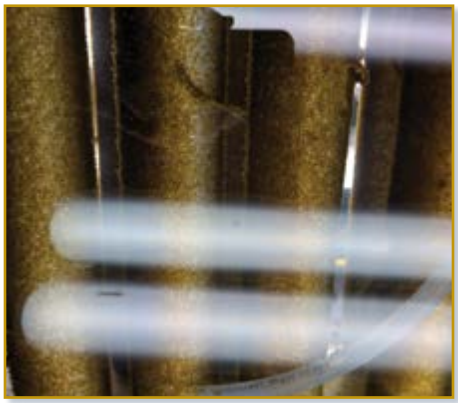
Sugar kelp growing monitoring.

C-ASD has been working with the aquaculture industry for more than 35 years on developing solutions for their operational problems and implementing new technology. The Centre's researchers and engineers were responsible for starting detailed research of the available seed cultivation techniques, farm setup and processing methods, and worked to apply this knowledge to NL's reality and industry capacity. These efforts led to the establishment of the first nurseries for kelp "seed" production, the first seaweed lines at the experimental sites and preliminary processing assessments.

Over the last four years, C-ASD has been working with NL companies like Shorefast (Fogo Island), Kalup Kelp Farms (Change Island), Connaigre Fish Farms Inc., NL Seaweed Inc. and HoldFastNL Seaweed Farm Inc. (south coast). This partnership has been instrumental to advancing seaweed cultivation, from seed production, outgrowing and harvesting while also preparing the industry for its next challenges, like processing and market development of the kelp produced in the province. A significant milestone in this direction is the issuance of the province's first commercial license for cultivated kelp to Holdfast NL

C-ASD and its industry partners have recently finished seed production and site seeding operations (November 2024 – January 2025) and are not only excited for this summer's harvest, but also for the plans for next season - this includes new partnerships, the development of processing and extraction techniques, production of new species and the establishment of a seaweed seed bank.

MIcroscopic image - Early Kelp development at the nursery.



Spools containing sugar kelp seeds.

Sugar kelp seeds ready to be seeded.

Microscopic image: Young kelp growing at the nursery.

Mature sugar kelp, detail - Spore storage in the dark area.

Sugar kelp harvesting.

U.S. Tariffs

Overview

On March 4, the United States introduced a 25% tariff on certain U.S.-origin goods that has significant implications for Canadian importers. This tariff applies to goods labelled as made in the U.S. under the Canada-United States-Mexico Agreement (CUSMA) regulations, regardless of their actual origin. Understanding the nuances of this policy and its exemptions is crucial for businesses navigating cross-border trade.

Key Considerations for Importers

1. Application of the Tariff

- The tariff applies to goods classified as U.S.-origin (https://www.canada.ca/en/department-finance/news/2025/03/list-of-products-from-the-united-states-subject-to-25-per-cent-tariffs-effective-march-4-2025.html) under CUSMA regulations.
- Goods sent to the U.S. for repair and re-imported into Canada are exempt.
- Shipments in transit before the tariff takes effect are also exempt if proof of shipment is provided.

2. Financial Impact & Compliance Strategies

- Importers should closely monitor the evolving list of affected goods.
- Proper documentation is essential for remission applications, which can help mitigate financial burdens.
- Businesses should assess potential cost increases and explore all relief measures.

3. Programs to Alleviate Tariff Costs

- **Duty Drawback Program**: Allows businesses to claim refunds on surtaxes paid for goods that are later exported. (https://www.cbsa-asfc.gc.ca/import/ddr-red/drawback-eng.html)
- **Duty Relief Program**: Provides an exemption from the surtax for goods intended for export.
- Companies utilizing these programs must maintain detailed inventory control systems to comply with audit requirements. (https://www.cbsa-asfc.gc.ca/import/ddr-red/relief-report-eng.html)

Next Steps for Importers

Stay Informed: Regularly review updates from the Canada Border Services Agency, Department of Finance, and trade organizations.

Assess Financial Impacts: Conduct internal reviews to determine how the tariff affects operations and budgeting.

Engage in Strategic Planning: Work with customs brokers and trade consultants to explore mitigation strategies.

Ensure Compliance: Maintain thorough records and documentation to support duty relief applications and potential audits.

*For further details, visit the CBSA's **Customs Notice***

TriNav Making Waves in Aquaculture Vessel Design

By: Kerry Hann, Managing Editor, Navigator Publishing

TriNav Marine Design (TMD) is continuing to advance naval architecture for the aquaculture industry in Newfoundland and Labrador and Eastern Canada. Working in consultation with leading aquaculture industry participants, TMD has developed a vessel design that is exceptionally well suited to support aquaculture operations on the South Coast of Newfoundland and similar areas.

"At 60' x 30', this strong and stable steel vessel is outfitted with two deck cranes, three deck capstans, a deck winch and a stern roller, enabling it to perform any aquaculture operations. The vessel provides a high level of crew comfort, great visibility from the wheelhouse and has a large below deck storage area.

Designed with TMD's award-winning efficient E-FINN hull form and outfitted with a high efficiency hybrid propulsion system, this environmentally friendly vessel will also contribute greatly to carbon reduction," explained TMD Director Rick Young.

"The E-FINN hull design has many features that improve on efficiency - most notably is an increased waterline length and refined entry angles at the bow," Young added.

We designed a reversed bow rake to help achieve this, while introducing bow flare to reduce spray and green water on deck. A refined entry angle makes it easier to push water away from the vessel as it moves forward, requiring less energy to do so. We refined the stern shape to reduce waterline breadth to reduce drag, without affecting stern buoyancy and trim. A large contributor to inefficiency is drag, as many tonnes of water are dragged behind the vessel in its wake. Reducing this meant less energy was used to move the vessel forward.

Another key feature about the hull that improves efficiency is an efficient propeller. Young explained that many times, not enough consideration is given to the propeller design. The rudder design will be improved to create better water flow and more effective lift or turning capabilities. An air foil design is much more efficient than a basic plate rudder with stiffeners. Stern post fairing is often overlooked, improving water flow to the propeller will improve performance and efficiency.

The E-FINN hull will be built with minimum or no exterior

attachments or protrusions. All attachments will be recessed with appropriate fairing. This will reduce surface area, drag and frictional resistance; all which add to hull efficiency. The hull will be finished with a highly efficient paint that will produce a slippery hull, also adding to efficiency.

Seaweed Bioactive Extracts

Centre for Aquaculture and Seafood Development helping local companies develop extraction methods for seaweed bioactives

By: Juran Goyali (Marine Bioprocessing Technologist) and Heather Burke (Director), Centre for Aquaculture and Seafood Development, Fisheries and Marine Institute, Memorial University of Newfoundland

The Marine Bioprocessing (MBP) group at the Centre Aquaculture and Seafood Development (CASD), Marine Institute, with funding support from the Canadian Centre for Fisheries Innovation (CCFI), is working with local industry partners to develop methods of extracting valuable bioactive compounds from wild and cultivated brown seaweeds.

Seaweed, which can be a rich source of valuable nutrients, is broadly classified by its pigments: green, red and brown. In Newfoundland and Labrador, the main focus is on brown seaweed, which includes sugar kelp *(Saccharina latissima)* and horsetail kelp *(Laminaria digitata)*. Several companies in Newfoundland are working on seaweed cultivation, wild harvesting and product development. However, this industry is still very new and limited research has been performed on local seaweed's nutritional and bioactive compounds. The North American market for products made with kelp is established and growing and will be worth about $200 M in the next year or two. Raw kelp from around the world has a high moisture content (75-92%) and contains other macronutrients, including carbohydrates, protein and lipids. On a dry weight basis, 40-60% carbohydrates, 5-26% protein and 0.5-3% lipids are present in these brown seaweeds. Kelp is a good source of bioactive and functional compounds, including vitamins, antioxidants (polyphenols, phlorotannin), carotenoids, bioactive polysaccharides (fucoidan, alginates) and omega-3 fatty acids that have tremendous applications in the health and cosmetic industries.

The Centre's MBP team is providing assistance to seaweed companies by developing a step-wise extraction process for antioxidant compounds and bioactive polysaccharides (fucoidan, alginate, and cellulose) from wild-harvested and cultured seaweed. Phenolic compounds, fucoidans and alginate have demonstrated a variety of health-benefiting biological functions, including antioxidation, anticoagulant, antitumor, antithrombosis, antivirus and immunomodulation activities. A key goal of the MBP team is to develop a process that minimizes waste generation and maximizes seaweed utilization by incorporating the principles of a cascading biorefinery to extract these valuable compounds.

The MBP team has also worked with a local company to investigate the suitability of their seaweed extract for use in skincare products by providing analytical support. The team analyzed the nutrient composition, bioactive compounds (e.g. polyphenols) in the seaweed extract and their antioxidant, anti-inflammatory and antimicrobial activities.

Seaweed growers have also expressed interest in extracting biostimulants (liquid fertilizer), which have high demand in agricultural production. The CASD recently installed new bioreactors in its Marine Bioprocessing pilot plant that can be used to extract bio-stimulants on a pilot scale from locally grown seaweeds. This technology will help seaweed producers develop unique products for the market.

Brown Seaweed

Alginate

PHOTO CREDIT: JURAN GOYALI, CENTRE FOR AQUACULTURE AND SEAFOOD DEVELOPMENT

HoldFastNL Seaweed Company: Newfoundland Town Turns to Seaweed to Tackle Wastewater Woes

The HoldFastNL Seaweed Company is making waves in Newfoundland with an innovative project that could revolutionize wastewater management. In collaboration with the Town of Conception Bay South (CBS), Holdfast NL is spearheading a pilot program exploring the potential of seaweed farms to naturally filter wastewater. Conception Bay South, like many coastal communities, faces ongoing challenges in managing its wastewater effectively. Traditional treatment methods can be expensive and energy intensive. Seaweed's natural ability to absorb nutrients and other compounds makes it an ideal candidate for bioremediation. Functioning as a natural sponge, seaweed efficiently filters water, removing pollutants and improving overall water quality. The CBS project aims to determine whether seaweed farms can provide a viable, eco-friendly solution for wastewater treatment in the region.

The pilot project involves cultivating seaweed near the town's effluent pipe, where it is exposed to wastewater. Researchers then monitor the seaweed's growth and its impact on water quality. Regular testing and analysis help determine the effectiveness of the seaweed in removing pollutants such as nitrogen and phosphorus, which are common contaminants in wastewater. If the project proves successful, the implications for coastal communities throughout the North Atlantic – and beyond – are significant. Seaweed-based wastewater treatment could offer a sustainable and cost-effective alternative to traditional methods, reducing the environmental impact of wastewater discharge while simultaneously creating opportunities for sustainable aquaculture.

Beyond wastewater treatment, the project also holds potential for economic development. The harvested seaweed can be utilized in various applications, including fertilizers, creating new revenue streams for local communities. The Holdfast NL CBS seaweed farm project represents a bold step towards a more sustainable future. By harnessing the power of nature, this initiative offers a promising solution for wastewater management while also fostering economic growth and environmental stewardship. As the project progresses, Holdfast NL and its partners remain committed to sharing their findings and collaborating with other communities interested in exploring the potential of seaweed as a natural resource. We thank Equinor for its generous donation and the support from the town of CBS.

Myrah Graham (M.Sc.) is the Director of Outreach and Stakeholder Engagement for HoldFastNL. She has worked in the non-profit/startup sector for over 10 years in the fields of horticulture and disaster relief with a focus on Arctic communities. She recently completed her Master of Science in marine biology with a focus on conservation and mapping.

All across Newfoundland and Labrador the aquaculture industry contributes to local rural economies by providing employment for residents and supporting infrastructure investments and service sector companies. Our towns support our sustainable industry by providing a positive and supportive environment for aquaculture development. With this in mind, the Community Profile Column, in each edition of the Cold Harvester magazine, will celebrate a community where the aquaculture industry is active and is boosting rural economic activity.

The Coast of Bays, located south of the Trans Canada Highway on Route 360 has many communities within it. Below is a short community profile on each of them.

Town of St. Alban's

St. Alban's is located in an inland area of the scenic Coast of Bays Region and its the largest community in Bay D' Espoir. There are currently 1, 186 residents. The nearest town or city centre is 180 kilometers away, in Grand Falls-Windsor (central region).

Today the major town and area industries include hydro generation and aquaculture. Aquaculture supports the community by creating employment opportunities, stimulating local businesses, and boosting the economy. Fish farms and related activities provide jobs for residents, from the hatchery and harvesting to processing and distribution. The increased economic activity promotes the growth of ancillary businesses such as equipment suppliers, transportation services and local markets.

St. Joseph's Cove

St. Joseph's Cove is a local service district located on the west side of Bay d'Espoir. The community sits in a large, shallow cove originally known as Cock and Hen Cove. In the nineteenth century the cove was the site of winter houses used by families from Long Island, engaged in winter woods work, small farming, and was also frequented by fishers digging cocks and hens/clams for bait. (hence the former

Milltown Head of the Bay

name) The community settled in 1880 when the first family of Organs moved to St. Joseph's Cove. The Bay d'Espoir Hydro-electric facility construction began in 1964, and more people moved to the region. Currently there are 50 homes with approximately 75 residents. Several residents make their living in aquaculture, making it important to the community.

St. Veronica's

Situated near Northwest Brook outflow into Bay d'Espoir, St. Veronica's is a small and welcoming town of less than 50 residents. St. Veronica's has a rich past of logging, sawmilling, family farming and is also the entrance to Bay d'Espoir Hydro Generation Station. The sheltered waters surrounding St. Veronica's are ideal for outdoor enthusiasts interested in activities such as fishing, kayaking and wildlife watching.

Milltown Head of Bay D'Espoir

The community settled in the early 1700's when European settlers visited the area to harvest timber for ships masts, wharves, and buildings. Commercial logging began in 1895. The Bay d'Espoir Hydro Electric Generating Station brought more residents to the area in the mid sixties. A strong flow of fresh water from the generation station provides brackish water which makes the area very suitable for finfish aquaculture. Milltown–Head of Bay d'Espoir had a population of 669 in the Canada 2021 Census.

CONTINUED ON PAGE 24

Morrisville

The community of Morrisville is nestled in a valley, approximately ten minutes from Milltown, and the last community on route 361. It is also directly across from Conne River, separated by what they call the "Tickle". The Kendall brothers moved to the area in 1910 and started up a sawmill and boat building businesses. The town was named after the Prime Minister at the time, Sir Patrick Morris. There are currently 88 residents.

Conne River

Miawpukek Mi'kamawey Mawi'omi is a First Nation Reserve located at the mouth of the Conne River on the south coast. It was officially designated as Samiajij Miawpukek Indian Reserve under the Indian Act in 1987.

With a current population at 1,000 (on-reserve), Miawpukek is a strong vibrant community with nearly 100% full-time/part-time employment. They are one of two of the fastest-growing communities in the province of Newfoundland and Labrador. The community is accessible by land, air, and water. Over the years the community has seen a steady growth in Government, Social reforms, Health, Education, Economic Development, Culture and Traditions. Miawpukek Reserve was established according to traditional oral history in 1870.

St. Jacques Coombs Cove

St. Jacques-Coomb's Cove is situated on the north side of Fortune Bay and the southern tip of theThe Town of Harbour Breton, NL - Photo credit unknown..PNGConnaigre Peninsula, with a population of 546. The town consists of six communities, St. Jacques, English Harbour West, Mose Ambrose, Boxey, Coomb's Cove, and Wreck Cove, all nestled within the inlets along the south coast. The fishery was always the mainstay of employment in the communities with aquaculture introduced in recent years, providing employment for its residents. The six communities were incorporated into the single town of St. Jacques-Coomb's Cove in 1972.

Belleoram

The community of Belleoram, which dates back to 1774, sits on the shores of Fortune Bay with a large harbour and shelter from the sea, with the protection of a natural breakwater. Its main industries are the fishery and aquaculture. The current population of Belleoram is 350 residents.

Home of the famous Iron Skull Mountain brings many visitors to the area for a great hike and panorama view of Fortune Bay North Shore.

Gaultois

Settled by fishers in the nineteenth century, Gaultois sits on an island with a population of one hundred residents. To reach the community of Gaultois, one must take a boat, helicopter, or a short ferry ride on MV Terra Nova, (twenty minutes from Hermitage). This ferry also services the more remote community of McCallum, once - twice daily (1 hour and 15 minute crossing)

McCallum

McCallum is a local service district located on the south coast accessible only by boat or by air, and its appearance and way of life is thought by some to be as close to a pre-20th century community as may be found. McCallum lies in an enclosed harbour and is sheltered between two hills. The community survives primarily on the fishery and aquaculture. The current population is 100 residents.

Harbour Breton

With a population of almost 1500, the historic Town of

Harbour Breton is the largest community in the Coast of Bays Region and is the service centre for a number of communities on the Connaigre Peninsula. Harbour Breton was settled because of the fishery, and today the traditional fisheries as well as the aquaculture industry are the mainstay of the town's economy.

Aquaculture plays a vital role in the economic and social well-being of the Town. The industry provides stable employment for many residents, allowing families to stay in the community, raise their children, and contribute to the local economy. Beyond employment, aquaculture companies are generous community supporters, contributing to school sports, infrastructure projects and other recreational facilities.

The positive impact of aquaculture extends far beyond the industry itself. It supports our town's growth, provides opportunities for young people, and ensures a vibrant and sustainable future for generations to come.

Pool's Cove

Pool's Cove is a charming community nestled on the northwest side of Fortune Bay. With a population of 175, this picturesque coastal community offers a glimpse into Newfoundland's rugged beauty and maritime heritage. Traditionally a fishing village, aquaculture now plays a significant role in the local economy. Despite the town's small size, there is lots of activity in Pool's Cove and its marine infrastructure is quite heavily used. The public wharf is used by commercial fisherpersons, the provincial ferry and aquaculture vessels.

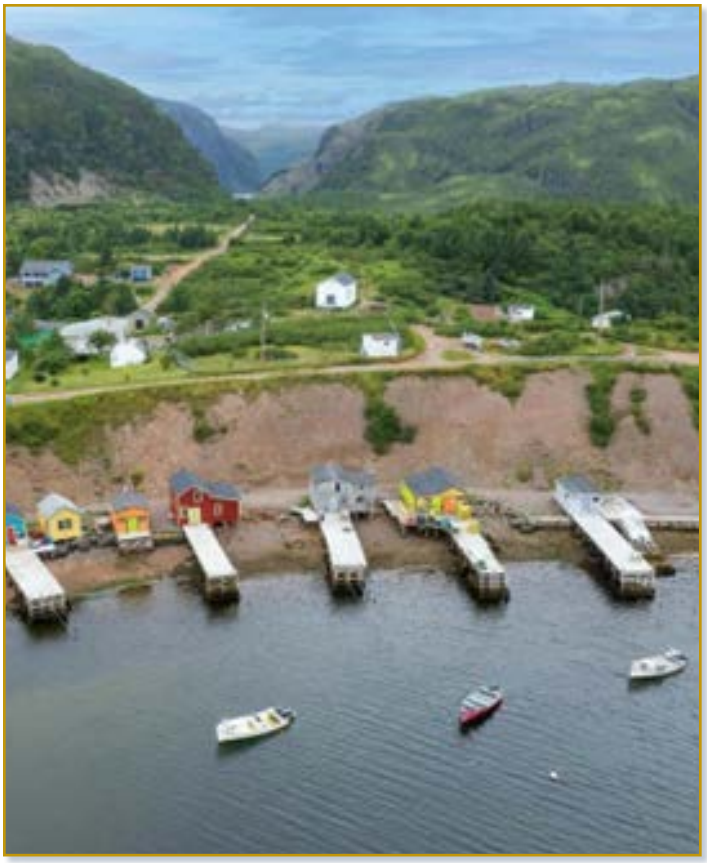
The passenger and freight ferry also serves as a vital link connecting Pool's Cove to the isolated western outports of Rencontre East and to Bay L'Argent on the Burin Peninsula.

Rencontre East

Located on the south coast and only accessible by water or air, the community has a population of almost 100 residents. Settled in the early 1800's, the mainstay of the community was codfish and herring but only seven fishing enterprises exist as of today. Aquaculture now compliments the traditional fishery and is providing a sustainable future to the town.

Coast of Bay Aquaculture Related Businesses:

- AKVA / Newfoundland Aqua Services Ltd. - Milltown Head of the Bay
- Ocean Trout Canada / Nova Fish Farms Office - St. Alban's
- Cooke Aquaculture – GMG Net Repair and Office - St. Alban's
- Cooke Aquaculture – Swanger Cover Hatchery - St. Alban's



Rencontre East, NL

- Nature Sea Farms/Barry Group Processing Plant - St. Alban's
- Centre for Aquaculture Health and Development/FFA – St. Alban's
- Perry's Trucking - St. Alban's
- NAIA Satellite Office - St. Alban's
- 360 Marine Ltd. - Harbour Breton
- Mowi Office - Harbour Breton
- Barry Group Processing Facility - Harbour Breton
- Tay Aus Diving – Harbour Breton
- Hermitage Processing Inc. - Hermitage Sandyville
- Cold Ocean Salmon Office - Hermitage Sandyville
- Connaigre Fish Farms - Hermitage

Merasheen Bay Oysters Featured At Canadian Culinary Championship In Ottawa

In January, oysters from Newfoundland were featured at the Canadian Culinary Championship in Ottawa. The event is the culmination of nation-wide chef competitions under the banner of "Canada's Great Kitchen Party". Each year, Canada's Great Kitchen Party brings together chefs, musicians, business leaders and community leaders to support music, amateur sport and food security for Canadian youth, supporting organizations like MusiCounts, Sprit North and Kids Eat Smart Foundation. The regional qualifier competitions are held in 10 cities across Canada and give Canada's top chefs a chance to represent their city at the Championship in Ottawa.

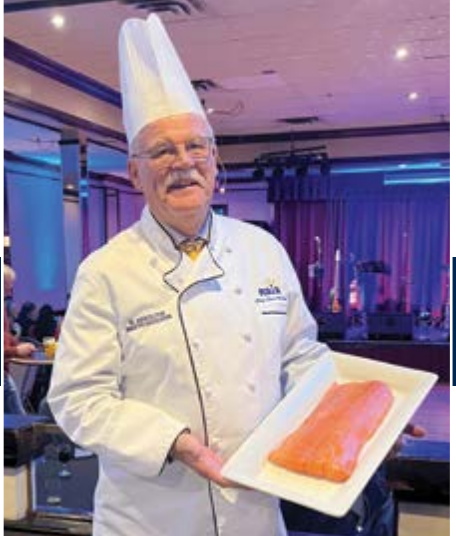
The St. John's qualifier competition (Canada's Great Kitchen Party) was held at the St. John's Convention Center in October and drew an audience of over 300 people from the local business and music communities for a spectacular culinary excellence. At the end of the night, Chef Nick Walters from Merchant Tavern had beat out 5 other local chefs to earn the gold medal and the honor of competing against 9 other top chefs from across Canada, in Ottawa.

On day one of the Ottawa event, a "Black Box" competition was held at La Cité Collégiale culinary school where Canada's 9 top chefs were each given a mystery box containing a diverse selection of foods, from which they had to prepare two dishes, using all seven ingredients, for the judges. One of the seven ingredients were "Merasheen Bay Oysters from Canada's coldest oyster-growing region, in Newfoundland". Other ingredients were: cured pork fat from Montreal, popping corn from Alberta, celeriac from Ottawa, mushrooms from Ottawa, Minas Frescal cheese from Manitoba and fresh sea urchin roe from British Columbia.

As an example of Black Box creations, Chef Matthias Fong from Calgary prepared "a clever mushroom carpaccio with celery root paneer, popcorn oyster tonnato and pickled urchin. His sesame fried dumpling with a celery popcorn brandade, pickled celery root and a lardo mushroom puree was another standout".

Chef Roary MacPherson from St. John's, one of the Senior Judges for the Canadian Culinary Championship, helped NAIA arrange for Merasheen Bay Oysters to be featured as part of the Black Box competition. Thanks Chef MacPherson!

Learn more at: https://greatkitchenparty.com/ca/.



COOKING WITH Chef Steve Watson

Newfoundland Organic Blue Mussels with Bok Choy in Coconut-Lime Broth

Ingredients:

3 lbs. Newfoundland Organic Blue Mussels
¾ lb. Fingerling potatoes, scrubbed and cut into ¼-inch rounds
1 tbsp. Toasted sesame oil
½ cup Minced shallots
1 tbsp. Grated fresh ginger
1 tbsp. Minced garlic
1 cup Chicken Stock
1 cup Light coconut milk
½ cup Water
Juice of 2 limes
2 tbsp. Soy sauce
3 Baby Bok Choy, bases trimmed, quartered
2 tbsp. chopped fresh cilantro, for garnish

Method:

Place potatoes in a deep 12-inch skillet and cover with cold water. Bring to a boil, reduce heat, and simmer 8—10 minutes or until tender. Drain and wipe the skillet dry. Add sesame oil to skillet over medium heat. Add shallots, ginger, and garlic. Cook, stirring, until shallots are translucent, approximately 5 minutes. Add chicken stock, coconut milk, water, lime juice, and soy sauce. Bring to a boil, reduce heat, and simmer until slightly reduced, about 5 minutes.

Add Bok Choy and cook, covered, for 4 minutes.

Add the mussels and cook, covered, until mussels open and the bok choy is tender, about 5 minutes longer. (Discard and mussels that don't open.) Divide the mussels, bok choy, and potatoes among serving bowls. Ladle on coconut broth and garnish with cilantro. Enjoy!

Seafood tips:

- Be careful not to over cook mussels, and definitely do not boil them covered in water. Mussels need to steam not boil.
- A general guide for how many mussels to cook is one pound per person.

"I want to be a Veterinarian"
Out of the mouths of babes!

NAIA Staff, together with staff from Ocean Trout Canada visited the kindergarten class at Bay d'Espoir Academy in early February and interacted with them in the animal hospital that they had prepared. They were interested in learning about Veterinarians and the role they play in taking care of animals. They enjoyed watching the video: Farm on the Sea, took care of their stuffed animals and toy salmon and enjoyed a coloring sheet and a few prizes. Special thanks to Ms. Young for inviting us to join you!

Family Literacy Week at Bay d'Espoir Academy

Family Literacy Week takes place annually to raise awareness about the importance of reading and engaging in other literacy-related activities as a family/group.

On January 31, staff from NAIA, Mowi Canada East and Cooke Aquaculture enjoyed spending time with students from Grades K - 6 at Bay d'Espoir Academy in St. Alban's, NL where they presented on this years Literacy Day theme: Learn to be Green, Together.

The students were eager to learn more about aquaculture, reducing the carbon footprint, and marine debris. Special thanks for allowing us to be a part of your literacy day event!

Couturier on Culture

Tariffs, Farm Labour, & Aquaculture Internship Support (Aquaculture IS Agriculture)

Cyr Couturier is marine biologist, aquaculture scientist, and advocate for sustainable seafood production and farming. He has 35+ years of experience in applied research and development, training and education in aquaculture and fisheries (seaweed, finfish, shellfish). He is a Board and Executive member of several farming & development associations, including CAIA, CFA, CAHRC, HORIZON TNL, RDÉE Canada, AAC and is a past president of NAIA, CAIA, AAC. He has worked in aquaculture and fisheries development in over 18 countries. The views expressed herein are his own. Contact: cyr.couturier@mi.mun.ca or follow on "X" @aquacanada, or LinkedIn.

There is no doubt the World is in turmoil of late, given the threat of tariffs from our major market to the South of Canada, the expanding role of fascism in trading partnerships across the globe, and the decline in food "security / affordability" prevalent in many places. The good news is that we can take charge of own future, with a little planning, including value adding to our agrifoods (yes, farmed and wild seafood are agrifoods), diversifying our markets, and pushing back on the tariff threats.

Tariffs

It won't be easy, or simple, and there will be some pain to go through in the next 12-16 months, for all seafood and agrifoods producers, especially considering 60-80% of our markets for agriculture and agrifoods, respectively, are integrated in USA businesses for sales, input supplies, machinery, restaurants, etc.

The inputs for feed, packaging, medicines, and other farm or fishing inputs do come from the American suppliers in many cases, so given the threats of counter tariffs escalating the whole trade balance, a governing body may in fact inflame a terrible situation, make it worse and beyond our control. Fortunately, both CAIA and CFA and many agrifoods producers will be arguing for rules-based trading partnerships, defending existing arrangements, and trying to cool things down.

Many of our Canadian farming and seafood businesses operate in true partnerships with one another, so imagine adding 25% tariff on food products, farmed or wild, and then next adding a tariff on incoming inputs and raw materials. For example, lobster from Maine being shipped to Atlantic Canada for processing and returning to USA with another 25% tariff. Or imagine your packaging, feed, medicine input suppliers (e.g., engines and gear for operations) being tariffed for your farms and being counter-tariffed "dollar for dollar". How does this help?

Who loses in all of this – the hardworking Canadians, Americans, working in agriculture and agrifoods, as well as the citizens of both countries. This will result in not only lost employment, but also business closures, less employment and business taxes to federal, state or provincial coffers, not to mention less access to affordable food for families, on both sides of the border. Our economies in Ag and Agrifoods are so intertwined, that any large tariffs, or counter-tariffs, will cause major disruptions of our economies, diminish GDP output, increase the debt nationally, even provincially. Don't forget 1 in 9 Canadians work within Ag and Agrifoods value chains, the largest privately owned employers in Canada, valued at roughly $160 billion in GDP in 2023.

On the non-tariff front, Canada has lost billions in investment over the past few years from Norway, China, USA, and other countries, a fair amount actually in the food and agribusinesses, and this is without much in the way of tariffs to begin with. Why are we pushing seafood farmers out of business, closing farms (e.g., salmon in BC) or inserting things like an NMCA in NL that has the potential to close not only seafood farms, but seafood harvesting, putting thousands of Canadian food producers out of business, sooner than later? Moreover, on land we are

CONTINUED ON PAGE 30

making agriculture land unaffordable in our own backyard in Canada, in favour of high speed rail, trucking routes, or housing developments, to name a few obstacles. Something has to give… and that will be Canadian farm and fishing agrifood businesses. We really should have policies in each province and nationally to protect our food and agrifood businesses, but we really haven't seen much, if anything, yet.

Labour Needs in Seafood and Aquaculture

It goes without saying, attracting both skilled and unskilled people to work in seasonal agriculture is difficult, but there are pathways available. For example, the farmed seafood sector, shellfish in particular, has seen basic wages increase in the some parts of the country to $25 per hour for at least seasonal work, plus medical and RSP plans. Granted this does not apply across the country or even within a province.

However, many operations in the farming sector (green houses, hatcheries, land-based and sea-based farming) or processing sectors (fish, meat, fruit, vegetables, etc.) actually require year-round skilled and unskilled labour to meet customer demands. The feds closed the Atlantic Immigration Pilot for permanent residency in 2021, but we are aware that in the seafood farming and processing businesses in Atlantic Canada they have taken up quite a few people under that program. Since then, some new programs have been put in place such as the Rural Community Immigration Pilot (Jan 2025), and recently announced new express entry permits (Feb 2025) for those with existing Canadian work experience, all for increasing pathways for permanency for a variety of economic sectors. Hopefully these will apply to both on farm and in the value chain for both skilled and lower skilled workers in the aquaculture and fisheries agrifoods sectors.

HOME - PROGRAMS

AGRI Talent

AGRI Talent supports the development of connections and networks among post-secondary students, institutions and employers and contribute towards preparing a job ready workforce. These networks will help bridge the gap between respective groups and create sustainable relationship for the future.

Aquaculture Internship and Apprenticeship Support

Good news regarding support for the various apprenticeship programs in our Province. Details can be found here. (https://www.gov.nl.ca/atcd/files/AWS_Fact_Sheet.pdf) Substantive wage support for plumbers, mechanical trades, even marine engineers or mariner trades may be available for the aquaculture sector. If a company is willing to provide sea time, experience, in one of these trades, you may find a great future employee for your business.

The Canadian Agriculture Human Resources Council (CAHRC) is promoting its youth internship program once again, with wage subsidies up to $7,000 per intern for qualified personnel involved in seafood farming in the value chain. Termed the Growing Opportunities wage subsidy program it applies to all parts of the farmed seafood value chain, from farm technicians, labourers, fish health professionals, hatchery personnel, even marketing and business internships, environmental personnel, and processing. If the student is part of your aquaculture business, they are eligible for a subsidy. Some conditions apply (must be a permanent resident or citizen, and must be returning to school, even if it is online after 3 months of internship). Dozens of Canadian aquaculture companies, several in NL, have taken advantage of this program to the tune of $300K in internship support over the past couple of years, so if you plan to hire a student for 2-3 months for your aquaculture business, a simple application can be made and discussed with CAHRC by contacting Megan Lockhart at CAHRC:

In spite of efforts to downplay the importance of the aquaculture sector by some folks, as well as the labour and tariff issues mentioned in this column, **the seafood farming industry is here to stay with a few adjustments in policies. It will continue to contribute to the rural, economic fibre, well-being, and community growth in Newfoundland and Labrador, as well as across the country**.

CAHRC-CCRHA
Canadian Agricultural Human Resource Council
Conseil canadien pour les ressources humaines en agriculture

Congratulations!

On behalf of the NAIA Board of Directors and staff, we would like to congratulate Tom Taylor on his new role as Executive Director of our counterpart association in New Brunswick, The Atlantic Canada Fish Farmers Association.

MARCH 14, 2025

ACFFA Welcomes Tom Taylor as New Executive Director

The Atlantic Canada Fish Farmers Association (ACFFA) is pleased to announce the appointment of Tom Taylor as its new Executive Director, effective March 24, 2025.

With over 25 years of experience in the aquaculture sector, Taylor is a highly regarded seafood industry leader who brings extensive expertise in fish farming operations. He has played a key role in the sector's sustainable growth, serving on multiple industry boards, including as chair of the board of directors of ACFFA since 2018.

"With his deep knowledge and proven commitment to coastal communities, Tom is well-positioned to guide ACFFA in advocating for the responsible growth of Atlantic Canada's fish farmers and supply chain," says David Seeley, Interim Chair of ACFFA. "We look forward to his leadership as we continue to champion investment, innovation, and economic development to support strong working waterfronts and add more career opportunities for young people across the region."

Taylor succeeds Susan Farquharson, who is stepping down after nearly ten years of dedicated leadership. Under her tenure, ACFFA has made significant strides in industry collaboration, public engagement, and advocacy. The association extends its sincere gratitude to Susan for her invaluable contributions to the sector.

"This new role is an exciting step in my career," says Taylor. "Fish farming is a vital, ever-evolving industry that provides sustainable seafood and supports thousands of families in Atlantic Canada. I look forward to working with the team, our members and partners to sustainably grow the sector as well as the continuation of our award-winning wild Atlantic salmon recovery efforts."

Throughout his career, Taylor has held board executive roles with organizations such as the Canadian Aquaculture Industry Alliance, Aquaculture Association of Canada, and the Bay of Fundy Business Council. He has also served on the NERACOOS (Northeastern Regional Association of Coastal Ocean Observing Systems) board, Community Business Development Corporation, and the Sir James Dunn Foundation.

Taylor has led feed production, forecasting, and operational planning teams at Cooke Aquaculture Inc., Charlotte Feeds Inc., Northeast Nutrition Inc., and Shur-Gain Atlantic. He has managed large-scale aquafeed production and distribution while spearheading best practices in feed management and sustainability.

The Atlantic Canada Fish Farmers Association (ACFFA) represents farmers, feed producers, and service & support organizations. Atlantic Canada's finfish sector supports more than 1,300 businesses and produces 323 million salmon meals annually. For nearly four decades, ACFFA has served as the regional voice of the salmon farming sector, advocating for research-driven, environmentally responsible, and commercially sustainable aquaculture.

For more information:

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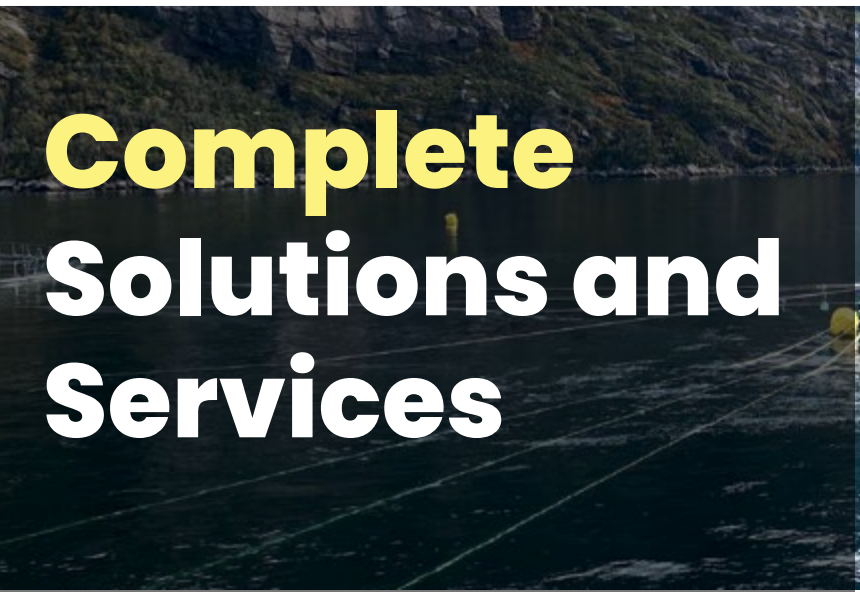

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WHY CHOOSE US?

We strive to be the partner you can rely on to help your business grow and succeed, and we're dedicated to making that happen every step of the way. We're committed to serving you for the long term.

3

WHO WE ARE

We are a locally owned and operated service provider for the marine and aquaculture industry in Atlantic Canada. Our main office is located in Harbour Breton, NL. We offer a wide range of products and services to suit all our clients' needs.

6

OUR VISION

We want to be there for you through every step of your project. Our vision is to be your go-to destination for all of your needs, whether it's through our wide range of products and services, our highly experienced and professional staff, or our commitment to excellence in everything we do.

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OUR MISSION

At 360 Marine Ltd., we are passionate about the aquaculture and marine industry, and we are committed to providing the highest level of service to our clients.

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