



Atlantic Canada Aquaculture Industry Research & Development Network

ACAIRDN

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In This Issue

[New R&D Coordinator](#)

[Offshore Aquaculture Research](#)

[Integrated Pest Management Strategy](#)

[Enhancing Mussel Production](#)

[SuperSmolt® Program](#)

New R&D Coordinator



By: AANS

My name is Danielle Goodfellow, I am the new R&D Coordinator for AANS. I have worked in most of the Atlantic Provinces, doing everything from salmon research to volunteering on a trout farm and collecting ballast tank water

Welcome to our e-Bulletin.

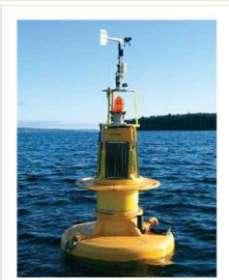
We hope you find the information here relevant and interesting. This bulletin along with our Facebook group will be the vehicles we use to communicate our activities, news, updates etc.

Happy reading!

Offshore Aquaculture Research

By: NBSGA

This three-year project came to an end in early 2010. The project aimed at developing knowledge of the relationship between the oceanographic conditions at low, medium and high energy marine sites and the response of cages and moorings. The sites where this work took place were located where the interplay of tidal currents and wind driven waves create challenging opportunities for farming. Understanding the relationship between oceanographic and meteorological in-puts and cage or mooring response, will support



AXYS technologies
buoy

samples, while crossing the Atlantic Ocean. I recently graduated with my Master's in Marine and Fisheries Science from the University of Aberdeen in Scotland. My career interests are focused on effectively communicating and identifying new research opportunities between the AANS and its members. I am extremely excited about my position and I am looking forward to getting to know the members and stakeholders.

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planning, operating and the monitoring of high energy sites. To read the final report click [here](#).

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Integrated Pest Management Strategy

By: NAIA

Fish health is an important aspect of farming salmon, and the monitoring of natural occurring pathogens and pests to ensure fish are healthy is possibly the most important job on an aquaculture site. While Newfoundland salmon farms have not seen high levels of sea lice, we are working with fish health professionals, both within our province and throughout Atlantic Canada, towards the implementation of an Integrated Pest Management (IPM) strategy for sea lice. This management strategy will make use of a variety of tools and practices to control lice while taking into consideration the differing physical and regulatory environments companies operate within. It is also important that the strategy operates in an environmentally safe and economically sustainable way.

Recently our salmon farming companies have been involved with the NL Department of Fisheries and Aquaculture (DFA) in their research of the use of Salmosan in skirted bath treatments for sea lice at two salmon sites in NL. While the research focused on the health of the farmed fish (safety of treatment, efficacy of treatment, etc.) it also considered environmental safety and the safety of local aquatic animals. In this regard the research involved taking water samples for the presence of Salmosan at various distances from the treatment areas and holding lobsters near the treatment areas to ensure that no effects on their health were observed.

The results from the research were very positive. The treatment went logistically very well, was efficacious with respect to sea lice clearance and did not produce any fish mortality effects. The lobsters, which were transported and held at the Marine Institute for observation following the treatment, have also been doing well.

The infrequent use of such treatments, in combination with basic fish health practices, are essential components of an IPM plan for sea lice control which will reduce the likelihood of sea lice becoming a problem - further reducing need for treatment in the future.

Darrel Green
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Enhancing Mussel Production - Mussel Seed Project



By: NAIA

While the blue mussel aquaculture industry in Newfoundland has had market challenges this past year, a renewed commitment towards effective marketing and an abundance of room for future farm expansion keeps us optimistic about the potential for expansion within the sector. With expansion in mind, one of the long term priorities identified by our mussel growers has been to guarantee that a consistent supply of good quality mussel seed is readily available to the industry. NAIA has just received funding assistance to carry out the final phase of our 4 year Mussel Seed Project, which looks at potential and existing mussel seed sources. To date analysis of collection efforts (amount of seed collected at each site), morphometric analysis (shell length, depth and width, shell strength, cavity volume, shell color, etc.) and genetic species composition analysis (PCR analysis of glu-5 and ITS DNA markers) has been performed for numerous sites in Placentia Bay, Bonavista Bay and Notre Dame Bay

This year we will again be contracting the Marine Institute Centre for Aquaculture and Seafood Development (CASD) to evaluate the growth and survival of seed collected in 2008 and 2009 in Bonavista Bay and Green Bay. The final report on this project is planned for March 2011.

Funding support for year 4 of this project is provided by the NL Department of Fisheries and Aquaculture (DFA) and the National Research Council - Industry Research Assistance Program (NRC-IRAP).

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Testing the effectiveness of the SuperSmolt® Program to reduce stress and mortalities associated with the introduction of juvenile rainbow (Steelhead) trout (*Oncorhynchus mykiss*) to full strength sea water marine grow out sites.

By: PEIAA

The main objective of this AFRI project was to assess the effectiveness of the SuperSmolt® Program treatment system at acclimating trout for entry into full strength sea water.

The SuperSmolt® Program was developed specifically as treatment to control smoltification in Atlantic Salmon. This project tested the program with rainbow (steelhead) trout, grown in a fresh water re-circulating system at the Brookvale hatchery in PEI and transferred to two marine grow-out sites in Nova Scotia.

The program was applied to a selected batch of juvenile trout, which were subsequently transferred for grow-out. Due to water temperature issues only one of the sites was used as part of the study. Overall the mortality levels of introduction to marine grow out sites was reduced down to roughly 5-10%, from 15-25% in previous years. The final report for this project is currently being completed.

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