



PEI Atlantic Shrimp Corp. Inc.
Harvester Sector
Projects Summary 2000 - 2017 (part 2)

The following projects from the harvesting sector have been funded by the PEI Atlantic Shrimp Corp Inc.:

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62. Silverside/Pinfish Sorting Machine
63. Fisheries Skills PEI 2008/2009 Training Project
64. Support Funding to Attend 2008 ICCAT Conference
65. The Impact of the Green Crab on Bedeque Bay and North River Oyster Beds: Population Size and Risk Assessment
66. Validation of Oyster Seed Relay as a Tool for Enhancement of Public Oyster Beds on PEI
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69. Developing a Strategy and Business Plan for the PEI Aquaculture Alliance (PEIAA)
70. Fishing Master IV Home Delivery Project
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72. Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) 2009-2010
73. Marine First Aid Training for the PEI Aquaculture Industry
74. PEIFA License Rationalization Process
75. Update and Revise the PEI Shellfish Aquaculture Environmental Codes of Practice (SAECOP)
76. International Conference on Shellfish Restoration
77. 2009 Herring Fishing Area 16 E&G Acoustic Sounding and Variable Mesh Gillnet Project
78. Fisheries Skills PEI 2009/2010 Training Project
79. Support Funding to Attend 2009 ICCAT Conference
80. Development of Aquaculture Management Plans for PEI Aquaculture Areas
81. Atlantic Canada Aquaculture Industry Research & Development Network (ACAIRDN)
82. Bluefin Tuna Catch and Release Trial Fishery
83. 2010 Herring Fishing Area 16 C, E and G Acoustic Sounding and Variable Mesh Gillnet Herring Project
84. Support Funding to Attend 2010 ICCAT Conference

85. PEI Shellfish Association Executive Director Interim Funding
86. ACAIRDN 2011
87. Harvester License Rationalization
88. Promotional DVD
89. Funding Comparison Study
90. Forklift Training
91. Development and Implementation of an Industry Led Environmental Management System
92. 2011 Herring Fishing Area 16 C & E and 16G Acoustic Sounding and Variable Mesh Gillnet Herring Project
93. Defining Optimal Growth Characteristics of Atlantic Halibut on PEI
94. Exploring Market Opportunities for the Expanding Prince Edward Island Oyster Industry Phase I: Market Analysis and Marketing Research
95. Updating the PEI Aquaculture Alliance Strategic Plan
96. Support for an R & D Coordinator and Related Activities
97. Strategic Plan Funding
98. Interim Executive Director Support
99. Project Funding Support for a Local PEI Oyster Promotional Campaign
100. Economic Impact Analysis of the PEI Aquaculture Industry
101. 2012 Acoustic Sounding and Variable Mesh Gillnet Herring Project
102. Support Funding to Attend 2012 ICCAT Conference
103. Developing and Testing an Integrated Pest Management Protocol to Mitigate Sea Duck and Waterfowl Predation on PEI Mussel Farms
104. Developing and Testing an Innovative Mussel Sock Configuration to Prevent Sea Duck Predation
105. Developing a Coordinated Response Plan to MSX
106. Pilot Project Request – Technical Support
107. Sea Lettuce Testing Project
108. Interim Executive Director Support
109. Quality Improvement Pilot Project for LFA 25
110. Executive Director – Core Funding Support
111. Aquatic Invasive Species and Aquatic Disease Prevention Education and Awareness Activities
112. Use of poly (vinyl siloxane) to control invasive tunicate fouling: A field-based study
113. MSC Review
114. 2013 Herring Fishing Area 16 C & E and 16G Acoustic Sounding and Variable Mesh gillnet Project
115. Halibut Life History and Population Genetics in the Southern Gulf of St. Lawrence
116. A Program to Mitigate Sea Duck and Waterfowl Predation on PEI Mussel Farms
117. Investigation of Continuous Rope Socking for Mussel Grow-out on PEI
118. Support Funding to Attend 2013 ICCAT Conference
119. Preparation for a Fisheries Training Database.
120. Developing an Oyster Biosecurity Plan
121. Fisheries Training Database Project
122. Lobster Quality and Handling Workshop Series
123. PEI Shellfish Association Executive Director

124. PEI Aquaculture Alliance Executive Director
125. Membership/Public Information Tools
126. Training and Professional Development Program for the PEI Aquaculture Industry
127. The Commercialization of Sustainable Land-Based Atlantic Halibut Aquaculture
128. Strategic Plan, Bylaw Revisions, Policy Manual (PEI Shellfish Association)
129. ThisFish Marketing Possibilities for PEI Seafood – Introduction & Opportunities for PEI
130. Installation of a Highway Sign for the PEI Shellfish Biosecurity and AIS Awareness
131. Survey of PEI Shellfish Growers to assess current and anticipated future production levels
132. The American Lobster in a Changing Ecosystem: A Canada – U.S. Science Symposium 2015
133. Request for Support Funding to Attend 2014 ICCAT Conference
134. PEI Oyster Aquaculture Mission to B.C. and Washington State
135. Investigating Environmental Factors that Influence Mussel Productivity
136. Core Funding Support for the R & D Coordinator Position
137. Prince Edward Island MSC Lobster Stakeholder Association
138. Lobster Quality & Handling Workshop Series 2015
139. Live Lobster Handling and Holding Guidelines Study
140. Pilot Project to Assess the Use of Drones to Mitigate Sea Duck Predation on PEI Mussel Farms
141. PEI Shellfish Association Core Funding & Training Support
142. Support for a Communications Project Manager and the Development of an Alliance Education, Communications & Social Media Strategy
143. Investigating PEI Oyster Industry Best Practices to Control *Vibrio parahaemolyticus*
144. 2015 Herring Fishing Area 16 C&E and 16 G Acoustic Sounding & Variable Mesh Gillnet Herring Project
145. PEI MSC Lobster Stakeholder Association – MSC Audit Cost Sharing
146. Expansion to Current Enhancement of the PEI Public Shellfish Grounds with Hatchery-Produced Seed
147. Fisher Educational Project – *Vibrio*
148. 2016 PEIFA Annual General Meeting – Student Presentations **WITHDRAWN**
149. Funding 2015 ICCAT Conference
150. Lobster Quality & Handling Workshop Series 2016
151. Determination of Hemolymph Biochemistry Reference Intervals in American Lobsters
152. Installation of a Second Highway Sign for the PEI Shellfish Biosecurity and AIS Awareness
153. Broodstock Enhancement of Prospective Natural Oyster Seed Collection Areas
154. Quality Control & Industry Liaison
155. Program Support (Core) PEI Shellfish Association
156. Core Funding Support for R & D Coordinator Position
157. Develop Diagnostic Markers to Assess Mussel Population Health in Response to Environmental Stress

158. Increasing the Efficiency of High Pressure Sprayer Tunicate Treatment Systems
159. 2016 Herring Fishing Area 16 C&E and 16 G Acoustic Sounding & Variable Mesh Gillnet Herring Project
160. Request Funding to Attend 2016 ICCAT
161. Develop Diagnostic Markers – year 2
162. 2017 International Molluscan Safety Conference
163. Northumberland Strait Temperature, Salinity and Dissolved Oxygen Monitoring Project
164. Shellfish Harvest Area Water Quality Monitoring and Data Analysis
165. Application for Continued Industry Training
166. Core Funding Support for the R&D Coordinator Position
167. Program Support Position
168. Training and Professional Development Program for Aquaculture
169. Additional 2017 Industry Training
170. Workshop: Alternative and Emerging Species for Potential Aquaculture Development
171. Comprehensive Training and Professional Development Program
172. Update and Revise the PEI Shellfish Aquaculture Environmental Codes of Practice (SAECOP)
173. Request for Support Funding to Attend 2017 ICCAT Conference

Updated July 13, 2018

61. Herring Fishing Area E/G Acoustic Sounding and Test Fishery Project for 2008

Proponent: PEI Fishermen's Association

Project Number: 08-HAR-061

Project Status (Active or Complete): Complete

Project Start/Completion Date: August 2008 -

Project Objective:

This project aims to conduct herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with DFO Science during the 2008 fall inshore herring fishery in Herring Fishing Areas 16 E/G. In particular this undertaking seeks to obtain estimates of size of herring schools as well as age-classes entering the population. The information collected is analyzed by DFO Science and contributes to compiling a consistent, stronger stock assessment and understanding of recruitment and fleet dynamics for the local spawning areas.

Summary of Findings/Project Outcome:

Selected fish harvesters collected important herring data using acoustic sounding equipment as well as variable mesh gillnets in both Herring Fishing Area 16E (Tignish, PEI) and HFA 16G (Fishermen's Bank, PEI). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. The 2008 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Results are also reflected in DFO's annual 4T assessment of Herring in the Southern Gulf of St. Lawrence. For more information regarding this project including summary maps and annual herring reports please contact the PEIFA at (902) 566-4050 or researchpeifa@pei.eastlink.ca.

Total Project Cost: \$48,350

Funding provided by PEIASC: \$14,350

Project Contact: Ed Frenette - PEI Fishermen's Association
Tel: 902-566-4050

62. Investigation of Low Impact and Natural Treatment Options for Mitigating the Impact of Tunicate Infestation on Mussel Aquaculture Farms

Proponent: PEI Aquaculture Alliance

Project Number: 08-HAR-062

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2008 - 2009

Project Objective:

Previous research and development trials have dealt with identifying mitigation techniques for tunicates on mussel growing equipment. The results from these trials have been promising, although environmental impacts have yet to be determined. The proposed project is looking for either a natural or a low-impact approach that is oriented towards changing or introducing husbandry practices to the mussel industry. It is possible that simple modifications into the daily operations could improve the overall quality of the mussels being produced. By working with growers who have previously used these techniques, and applying them to areas where they have not yet been employed, it is hoped that some methods could be developed and integrated into the current practices in areas where these techniques have yet to be tried.

Other partners: PEI Department of Fisheries, Aquaculture & Rural Development, PEI Aquaculture Alliance, AFRI

Summary of Findings/Project Outcome:

The objective of the project was to investigate three existing mussel farm management practices that would be considered low impact or natural. These have been reported as an effective mitigation for tunicate infestation.

1. Mussel socks were sunk so that they touched the bottom substrate (bottom one foot of sock) or a piece of material was added to the socks as a “ladder” to the bottom. This allowed naturally occurring predators already present in local ecosystems access to the socks. The two variations of the trial were set up at the two different sites for comparison.

The sock touching method was beneficial in decreasing the volume of tunicates, in some areas by close to 50%. The ladder method also proved effective in some areas, showing a 50% decreased in tunicate volume. There was however a large variation between test areas. Results show the average shell lengths were longer in treated mussels at both sites when compared to the control samples; however there was no consistent trend in improvement of mussel meat yields.

Some observations for this control method were that additional maintenance is needed (line checking, adding buoys, adjusting ladder lengths, removing starfish, etc). As sock weight increases, buoys can be added, but potentially more attention is needed than is practical. The bottom section of the sunken socks was black and muddy, with no live mussels. In some areas the socks were in danger of being picked clean without interference; the majority of large starfish were knocked off during maintenance between collections.

2. Mussel socks were raised up in the water column by adding buoys to the backline, leaving them suspended at or just below surface, allowing the socks to be exposed to wave action. This was done in three areas, a high energy (exposed to strong wave action), a mid energy and a low energy (sheltered) site. Nearby mussel socks were left suspended below the water's surface as controls.

Results show that the tunicate volume was less on the treated socks in all three areas. Most obvious was in the mid energy area, where there was an average of 80% fewer tunicates. Some observations on this method were that the treatment had the most notable affect on the upper half of the socks, while the lower half remained submerged and fouling greater and that the mussels located lower on the mussel socks were attached more loosely than at the top.

3. Mussel socks were washed using a low pressure, consistent flow of water. This was done by hand to help remove tunicates as well as other fouling organisms.

Results show a dramatic reduction in tunicate volume in two of the test areas, while results in another were comparable to those obtained using natural predator control (Method 1). In the tunicate free test area, the treatment was able to reduce the amount of fouling mussel seed by a quarter.

There was an increase in average shell length in three areas, though the mussel meat yield appeared to be largely unaffected by this treatment, showing little variation.

Attachment strength was greatly improved in washed samples at one site when compared to their controls, while at other sites the socks remained tight. The benefit of increased byssal attachment strength was apparent in one area with the successful harvest of 7 times more mussels on the treated socks.

Some observations on this method were that it is relatively quick and easy to perform, and requires only a pump, hose and nozzle for implementation. The mussel socks do need to be lifted completely out of the water in order to get complete access while spraying, and the socks may need to be turned by hand to ensure coverage.

Total Project Cost: \$73,422.38

Funding provided by PEIASC: \$3,671

Project Contact: Linda Duncan, Executive Director

Tel: 902-368-2757

63. Fisheries Skills PEI - 2008/2009 Training Project

Proponent: PEI Fishermen's Association & Prince County Fishermen's Association

Project Number: 08-HAR-063

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2008

Project Objective:

The Prince Edward Island Fishermen's Association (PEIFA) in cooperation with The Prince County Fishermen's Association (PCFA) is initiating a project called Fisheries Skills PEI –2008 / 2009 Training Project. The purpose of this undertaking is to coordinate, promote and support an Island wide fisheries training program which has been developed. This present initiative will involve:

Coordinating fishery training courses Island wide and providing a supporting role to assist fishers in determining the training necessary to meet Transport Canada guidelines.

Coordinating fishery training courses Island wide and providing a supporting role to assist fishers in accessing funding from Service Canada.

Advertising courses to inform fishers of availability of training.

Negotiating course costs, times and locations with training institutions. Emphasis will be on holding training in local communities where numbers warrant.

Providing enhanced financial supports (additional 10% of course tuition) to fishers taking courses where tuition is in excess of \$500 per course.

Providing assistance of \$250 for 60 fishers who take the MED A1 training. Service Canada no longer subsidizes any training of three days or less.

Developing a "Training Plan" for 2010 season.

Summary of Findings/Project Outcome:

Total Project Cost: \$57,000

Funding provided by PEIASC: \$56,000

Project Contact:

Ed Frenette - PEI Fishermen's Association

Tel: 902-566-4050

Shelton Barlow - Prince County Fishermen's Association

Tel: 902-859-2537

64. Support Funding to Attend 2008 ICCAT Conference

Proponent: PEI Fishermen's Association

Project Number: 08-HAR-064

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2008

Project Objective:

The project was designed to afford PEI Blue Fin Tuna harvesters, Canada's largest tuna fleet, adequate representation on the Canadian contingent attending international TAC and quota discussions at the International Committee for the Conservation of Atlantic Tunas (ICCAT) for 2009 and 2010.

Summary of Findings/Project Outcome:

The project saw two members of the PEIFA's Large Pelagic Advisory Committee attend ICCAT meetings in Morocco as part of the Canadian delegation. As such, the PEIFA representatives had direct input to developing the Canadian position on TAC distribution and quota sharing, especially between nations in the western Atlantic region. The results were positive in that while eastern Atlantic and Mediterranean quotas were reduced by some 25% with strict enforcement measures announced, western Atlantic quotas saw on a 10% reduction. While Blue Fin Tuna stocks are recognized as being over exploited in Europe and North Africa, the efforts of the Canadian delegates saw this nation's sustainable harvesting methods recognized internationally.

Total Project Cost: \$11,390

Funding provided by PEIASC: \$7,600

Project Contact: Ed Frenette - PEI Fishermen's Association
Tel: 902-566-4050

65. The Impact of the Green Crab on Bedeque Bay and North River Oyster Beds: Population Size and Risk Assessment

Proponent: PEI Shellfish Association

Project Number: 08-HAR-065

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2008 - 2011

Project Objective:

The first objective is to conduct estimations of green crab population size in Bedeque Bay and North River. The information currently available for both areas is not quantitative. A more informative approach will result from systematic sampling that target not only large (adult) green crabs but also juvenile green crabs.

The second main objective is to identify oyster's most vulnerable stages to predation by different crab stages. Bivalve survival is usually considered size-dependent therefore knowledge on the size at which crab predation declines most substantially is essential in order to implement the best measures.

The last objective is to identify potential mitigation measures to prevent/reduce mortality of oyster's most vulnerable stages. The literature will be consulted and specific trials will be performed in order to test the efficiency of potential alternatives.

Summary of Findings/Project Outcome:

An extensive program of surveys and experimental manipulations were conducted between 2008 and 2010 in order to fulfill the three objectives of this project. For objective 1, we quantified green crab population numbers and assessed their potential increase in Bedeque Bay and North River. In order to do this, seven sampling sites were established and systematically sampled along the fall of 2008 and the summer and fall of 2009 and 2010. In general, the results of those surveys suggest a consistent increase in the number of green crabs in North River (three sites). In Bedeque Bay, our results indicate the colonization of areas previously not invaded in Dunk River, and an increase (particularly between 2008 and 2009) in the number of green crabs in those areas where green crabs were found since 2008.

For objective 2, we conducted experimental manipulations to assess the impact of green crabs upon American oysters. Using field and laboratory experiments we used four representative sizes of oysters (arbitrarily called small, medium, large and extra large) and exposed them to predation by three representative crab sizes (small, medium and large). Our results indicate that overall predation rates were higher than expected (up to 30 small oysters per crab per day). Such predation rates decreased as the size of the green crabs decreased or the size of the oysters increased. To increase the realism of these experiments we also conducted prey-preference studies where we compare

green crab feeding rates on oysters, blue mussels and soft-shell clams of similar size ranges. Our results show that green crabs consistently prefer soft-shell clams and mussels over oysters but are still able to cause mortality on oysters, particularly at small sizes.

For Objective 3, we conducted an extensive review of the mitigation strategies available in the literature for this and other species of oysters found elsewhere. Such review suggested three main alternatives: the establishment of a fishery for the green crab, the placement of soft-netting or fencing to protect beds, and the identification of an oyster refuge size above which green crabs would no longer produce substantial mortality. In this section of the report we provide evidence suggesting that the first two alternatives have limited applicability or are simply not suitable for the protection of leases or public oyster beds in PEI. On the contrary, we make recommendations regarding the use of the third alternative, oyster refuge sizes. Based on the information gathered under Objective 1 and the size-vulnerability results obtained in Objective 2, we strongly encourage the industry to grow oysters off-bottom until they reach a size of 35 mm SL and apply the same refuge size in every bottom-seeding operation in the province.

Total Project Cost: \$74,500

Funding provided by PEIASC: \$7,450 over 2 years

Project Contact: Clifford Bernard, President
Tel: 902-831-3374

66. Validation of Oyster Seed Relay as a Tool for Enhancement of Public Oyster Beds on PEI

Proponent: PEI Shellfish Association

Project Number: 08-HAR-066

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2008

Project Objective:

PEI Shellfish Association is purchasing one year old seed to assess the outcome of seed relays. This seed is being put on seven sites and will be equipped with temperature recorders and samples will be taken spring and fall over a three year period.

Summary of Findings/Project Outcome:

Total Project Cost: \$53,993

Funding provided by PEIASC: \$28,837

Project Contact: Clifford Bernard, President

Tel: 902-831-3374

67. Frozen Storage Facility Concept for Consideration

Proponent: Western Gulf Fishermen's Association

Project Number: 08-HAR-067

Project Status (Active or Complete): Complete

Project Start/Completion Date: January 2009

Project Objective:

Western Gulf Fishermen's Association Inc is exploring the viability of a freezer facility that would stabilize their and other Western PEI fishers' bait costs, as well as determining if such a facility could provide capacity and at what cost for other seasonal products to the benefit of the broader Western P.E.I. community.

Summary of Findings/Project Outcome:

Phase I of the project - a feasibility study - revealed that the construction and operation of a 5-million pound cold storage facility in Western Prince Edward Island is feasible under certain circumstances. Through Phase II of the study - development of a business plan - the consultant met with prospective stakeholders in the facility and potential funding partners. However, the 2009 lobster season saw prices drop significantly and consequently there was little appetite among the prospective partners for the sizable investment required to move forward with the facility. Subsequent to the study's conclusion, a party from outside of the immediate area of the study has expressed interest in participating in the facility's development.

For more information on this study, please contact Craig Avery, President, Western Gulf Fishermen's Association at (902) 887-3883, avery@pei.sympatico.ca

Total Project Cost: \$18,000

Funding provided by PEIASC: \$12,000

Project Contact: Craig Avery

68. Project Funding P.E.I. Shellfish Association Executive Director

Proponent: PEI Shellfish Association

Project Number: 08-HAR-068

Project Status (Active or Complete): Complete

Project Start/Completion Date: January 2009 - 2010

Project Objective:

This individual is expected to provide leadership for the PEI Shellfish Association to assist in developing strategies to address issues facing the shellfish industry. He/she is to represent the interests of the PEI Shellfish Association to both levels of government, other industry associations and the general public, as well as obtain long term funding for oyster enhancement and other appropriate development projects. He/she is to identify mechanisms and/or sources of long term core funding for the Association.

Summary of Findings/Project Outcome:

The past year saw the completion of the unification of the Shellfish Association with one Board of Directors being elected at their first Annual meeting in March 2011. It is now necessary to secure funds to have the changes incorporated into the Constitution and By Laws (estimated @ \$2000.00).

Shellfishers themselves continue to be preoccupied by low prices and diminishing supplies of product available for harvest. One solution is the expansion and further development of the enhancement program which was seriously challenged by debt. In 2011 this debt was mitigated with the assistance of the Provincial Government and the sale of some surplus Assets.

The closure of Rivers (East River, West River and North River) by rain causing sewage spills at Charlottetown and area continues to threaten the Shellfish industry. These closures represent a real loss of income to Queens County Shellfishers and also causes the relocation of harvesters to areas like Bedeque which are currently overcrowded. The Association has demanded compensation for losses and these discussions are ongoing. Another concern is the lack of slightly undersized oysters which provide for the future. While enhancement is taking place this brood stock is believed to be diminishing. A study should be conducted to investigate this.

We have applied for a project to enhance oyster quality and are currently engaged in discussions with Provincial Environment officials and a private company to remove Sea Lettuce. It is hoped that these projects will help Shellfishers and, if ongoing, will mitigate the financial position of the Association.

The Shellfish Association spent considerable time and Human and financial Resources planning for and taking part in the Annual Shellfish Festival. While this event is laudable in the promotion of Shellfish products and the generation of profit for many participants, it provides virtually no revenue for the Shellfish Association. This situation is currently being addressed.

Another, on going project, is the transfer of ownership of the Hurds Point trailer Park from the Central Development Agency to the P.E.I. Shellfish Association. This transfer will be complete in August and will involve some transfer of past profits (approximately \$3000.00) plus future profits between \$3000.00 and \$5000.00 per year

The Association has joined the Canadian Council of Professional Fish Harvesters and continues to seek funds for training. Funding for training may be available this fall. Another interesting aspect of our membership in the C.C.P.F.H. is their pilot projects on Eco Certification. This could be a valuable marketing tool for oysters and other shellfish.

The Association has applied for funds from the P.E.I. Atlantic Shrimp and the Provincial Department of Fisheries, Aquaculture and Rural Development to retain it's executive Director. The Association believes that the services of it's Executive Director are necessary to oversee on going projects as well as to to continue to seek other sources of funding on an on going basis.

Total Project Cost: \$221,500

Funding provided by PEIASC: \$96,500 over 2 years (\$51,000 year I, \$45,500 year II)

Project Contact:

Clifford Bernard, President
Tel: 902-831-3374

69. Developing a Strategy and Business Plan for the PEI Aquaculture Alliance (PEIAA)

Proponent: PEI Aquaculture Alliance

Project Number: 08-HAR-069

Project Status (Active or Complete): Complete

Project Start/Completion Date: January 2009

Project Objective:

The PEIAA last went through a strategic planning initiative in late 2004 for the period of 2005 to 2008. Since this time, the mussel industry in particular has been devastated by aquatic invasive species (AIS) and almost all their strategic initiatives and priorities have been geared to try and find mitigation solutions. PEIAA staff efforts are focused for the majority of their time on this issue. The majority of aquaculture research and development dollars have been invested in AIS since 2006. The PEI aquaculture industry has to look hard again at its strategic direction with little increase in farm gate prices for product while there is an increase in costs of production.

Also, the PEI Department of Fisheries Aquaculture and Rural Development have requested an updated Strategic and Business plan from the PEIAA to continue the current agreement for levy matching which it uses to support the industry.

The objectives of this project are:

1. Develop a three year strategy plan defining the strengths, weaknesses, threats and opportunities for each of the industry sectors - the mussel, oyster and finfish industries. This will also identify industry priorities and direction.
2. Use this plan to incorporate the PEI aquaculture industry into the DFO Aquaculture Management Directorate national aquaculture strategy for the shellfish and finfish sectors to insure our industry sector priorities are recognized.
3. Communicate and drive PEI industry priority strategies at the national industry aquaculture forum to ensure PEI aquaculture is well represented.
4. Prepare a business plan for the PEIAA to support these strategies for the next three years of operation.

Summary of Findings/Project Outcome:

The PEI aquaculture industry sees as its future vision the need for aquaculture in PEI to be a thriving, growing and prosperous aquaculture industry which is exporting product to expanding internal and external markets. We believe that this is possible using innovative technologies and sustainable harvesting practices which produce safe, quality and valued products.

We believe that we need to have a managed and protected aquatic environment which is protected from disease and further invasive species supported by an effective accommodating regulatory environment. Our industry will continue to thrive championed by successful value add research and development. PEI aquaculture will continue to generate more jobs for individuals, families and the rural communities as well as further contributes to the economic development of PEI.

This long-term vision of the PEI aquaculture industry that its members wish to build, in collaboration with government and industry stakeholders, provides a common focus for all involved, serving as a basis for the establishment of goals and objectives, strategy development, and decision making.

Key to industry's success is a managed aquatic environment that is protected from disease and new invasive species, while being supported by an effective, accommodating regulatory environment. Industry believes that it is strategic to utilize innovative technologies and sustainable harvesting practices, supported by successful, value-add research and development. PEI aquaculture wishes to contribute to the economic development of PEI and continue to generate jobs for individuals, families, and rural communities

Aimed at the realization of the long term goal for the PEI aquaculture industry, the cultured mussel, oyster, and finfish sectors have identified the following priority three-year goals:

Cultured Mussel Sector:

Goal #1: Increase the farm gate value of cultured mussel grower product

Goal #2: Manage current and prevent new invasive species

Cultured Oyster Sector:

Goal #1: Increase production of cultivated oysters

Goal #2: Protect water quality and prevent the introduction of MSX to PEI

Cultured Finfish Sector:

Goal #1: Gain access to adequate fish health services

The PEIAA's mandate is to enhance aquaculture industry prosperity through its development as an effective world competitor. In support of the goals established by the mussel, oyster, and finfish sectors, the PEIAA will dedicate its resources to advance the following priority objectives for the period May 2009 to April 2010.

Advocacy Objectives

The PEIAA will conduct advocacy to gain access to financing for cultured mussel growers for equipment to manage tunicate infestation.

The PEIAA will conduct advocacy to gain access to financing for cultured oyster growers and production growth.

The PEIAA will review the DFO National Aquaculture Strategic Action Plan Initiative changes to national strategy and programs, as well as funding opportunities, and re-assess the Aquaculture Alliance strategic goals and objectives to maximize value to the PEI aquaculture industry. The PEIAA will conduct advocacy to achieve implementation of provincially-funded fish health testing services for the Finfish sector.

The PEIAA will conduct advocacy to achieve modifications to the Atlantic fish health certification regulations to accommodate hatchery and R&D land-based and freshwater Finfish operations

Stewardship Objectives

The PEIAA will conduct advocacy to gain access to financing for cultured oyster growers and production growth.

The PEIAA will conduct a water quality gap analysis and identify requirements to: protect PEI water quality, prevent new invasive species from entering PEI waters, and maintain PEI's disease-free status. And, the PEIAA will conduct advocacy in support of aquaculture interests aimed at protecting water quality through changes to PEI land use regulations.

PEI AA will continue to conduct AIS awareness campaigns to stop the spread in aquaculture dependant estuaries

PEI AA will continue to strength collaboration on behalf of the industry with provincial and federal aquaculture departments; as well as the national and provincial aquaculture associations of Canada

Promotion and Communications Objectives

The PEIAA will support the execution of the generic mussel marketing campaign.

The PEIAA will establish a media communications process and materials to support PEI aquaculture interests aimed at both promoting the industry and countering negative publicity.

Total Project Cost: \$9,850

Funding provided by PEIASC: \$7,650

Project Contact: Linda Duncan, Executive Director
Tel: 902-368-2757

70. Fishing Master IV Home Delivery Project

Proponent: PEI Council of Professional Fish Harvesters

Project Number: 09-HAR-070

Project Status (Active or Complete): Complete

Project Start/Completion Date: February 2009 - 2011

Project Objective:

This project involves the delivery of computer discs to 12 Island fish harvesters for their use to study the Transport Canada Fishing Master IV examinations. The fish harvesters will be mentored and assisted by Holland College Marine Training Center by a newly designed e-mail link as well as telephone assistance.

The progress of the Fish Harvesters will be monitored by the P.E.I. Council of Professional Fish Harvesters who will carry out a selection process and will be in weekly contact with the harvesters to make suggestions to enhance the technology, overcome shortcomings and ensure a reasonable success rate on examinations.

Summary of Findings/Project Outcome:

In January 2009 the PEI Council of Professional Fish Harvesters applied to the PEIASC for funds to conduct a Fishing Master IV Distance Learning Course which was to be delivered by computer disks supplied by the Canadian Council of Professional Fish Harvesters. This project was approved and the disks were delivered to 12 selected fishermen on 20 Feb 2009. The disks had been developed by a group of Marine training instructors and tested in focus groups by the CCPFH. The PEI experiment was to be the first in Canada to enable fishermen to study for Transport Canada exams with a view to achieving FMIV status.

Unfortunately, many technical problems existed with the disk and despite our attempts to remedy these problems it was determined that the disk was not user friendly. In March 2009 9 of the 12 fishermen took part one of the four part TC exam. Only one succeeded in achieving the 70% passing grade. With fishing season approaching this project was suspended until the fall of 2011. Participants were contacted and there was little interest in pursuing the project further due to past frustrations with the disk.

While the PEI attempt was largely unsuccessful for the participants it was successful in determining the problems with the disk. These problems were identified by our pilot group and feedback was delivered to the CCPFH and the training institutions that developed the tool. Because of this feedback the tool was reworked and is now functional and being used by fish harvesters across Canada.

Total Project Cost: \$43,250

Funding provided by PEIASC: \$43,240

Project Contact:

Donnie Strongman, President

Tel: 902-831-2256

71. PEI Aquaculture Alliance Communications Plan

Proponent: PEI Aquaculture Alliance
Project Number: 09-HAR-071
Project Status : Complete
Project Start/Completion Date: February 2009

Project Objective:

The PEI Aquaculture Alliance, which supports all sectors of the aquaculture industry across PEI and works in partnership with other related local industry associations, federal and provincial government and aquaculture associations across Canada, was formed to provide focus for the Island's aquaculture industry and to enhance industry prosperity through its development as an effective world competitor. The association's objectives are to: protect the interests of PEI growers, processors, packers and marketers; promote a cooperative spirit among the PEI Aquaculture Industry for their mutual benefit; to encourage industry driven aquaculture R&D with an emphasis on improving the economics of aquaculture and to gather and disseminate information resulting from research to members of the Alliance.

In order to fulfill these objectives the association must be able to effectively communicate with key stakeholder groups in both a proactive and reactive manner. The development of a communication plan would enable it to do so in a more effective manner, thereby supporting existing aquaculture operations and potentially helping to expand the industry.

The objective of this project is to develop and implement a communications plan to complement and support the mandate and objectives of the PEIAA. The project would have three main deliverables; a communication plan with fixed goals and deliverables, the design and printing of a set of information fact sheets and a wholly revised website with a content management system.

Summary of Findings/Project Outcome:

Methods

Fresh Media, a graphic design and web site firm based in Charlottetown, were contracted to construct the new website and communication materials, using a common design theme. To allow the website to be updated in a timely and effective manner, a content management system was part of the website's design. A content management system is a tool which allows nontechnical users to create, edit and publish pages without affecting the website's architecture. Development of the information fact sheets was done in consultation with the PEIAA staff and members. Crystal MacDonald, Carpe Diem Consultants, was hired as technical writer to ensure the effectiveness of the materials at communicating the intended message.

Results

The new website has been completed and launched. Extra domain names were also purchased, at the recommendation of the consultants, to protect the PEI Aquaculture Alliance brand and maximize the traffic to the new site. The site can be found at www.aquaculturepei.com. The new communication materials have been printed. A hard copy has already been sent to PEI Atlantic Shrimp Corp; further copies are available upon request from the Alliance office. The communication plan has been written and will be presented to the board of directors.

Total Project Cost: \$39,288

Funding provided by PEIASC: \$18,832.80

Project Contact: Linda Duncan, Executive Director Tel: 902-368-2757

72. Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) 2009- 2010

Proponent: PEI Aquaculture Alliance
Project Number: 09-HAR-072
Project Status: complete
Project Start/Completion Date: May 2009 - 2010

Project Objective:

Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN)

The objective of this initiative is to partially support a Research & Development Coordinator (RDC), Peter Warris, within the PEI Aquaculture Alliance.

The R&D Coordinator will act as a technical resource to all Alliance members across the island. Peter will also represent the Alliance in its membership in the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN). Through this network the RDC communicates with other RDCs in New Brunswick, Nova Scotia and Newfoundland aquaculture industry associations.

The R&D Coordinator role has been instrumental in assisting industry with this ongoing need for research at the local level as well as participating in regional projects, and will continue to address the aquaculture industry's research and development priorities throughout 2009/10.

Summary of Findings/Project Outcome:

The success and impact that ACAIRDN has had is clearly demonstrated by the number of projects and R&D dollars invested, over \$20 million since 2002. The PEI Aquaculture Alliance R&D Coordinator (RDC) has been involved to varying degrees in ten different projects in 2009-10. Also five project and workshop proposals were prepared through the year. Two workshops were held in March 2010, "Expansion of the PEI Oyster Aquaculture Industry and the continued development of off-bottom Oyster culture. Opportunities, Barriers and Developments" and "The AIF Technical Day". Final reports are available from these workshops upon request. The R&D priorities of the PEI aquaculture industry are available from the RDC and have been communicated to partner groups such as DFARD, DFO and other funders.

In June of 2009 ACAIRDN held a conference call with CAIA (the national industry association) about their potential role in CAIA's proposed certification benchmarking project. The RDC was also responsible for reviewing the draft WWF bivalve aquaculture standards and coordinating the PEIAA response.

The RDC meets frequently with industry members, including monthly board meetings and AGMs, and also with research partners and industry suppliers. He also represents the interests of association members at a number of committees and working groups.

Outreach to other Aquaculture Industry Associations, to increase national collaboration and communication, included the Aquaculture Association of NS, NB Salmon Growers Association, Newfoundland Aquaculture Industry Association, NB Professional Shellfish Growers Association, Northern Ontario Aquaculture, Maine Aquaculture Association, BC Shellfish

Growers Association and Interprovincial Partnership for Sustainable Freshwater Aquaculture Development.

Total Project Cost: \$77,334

Funding provided by PEIASC: \$29,438.00 over one year

Project Contact:

Linda Duncan, Executive Director
Tel: 902-368-2757

73. Marine First Aid Training for the PEI Aquaculture Industry

Proponent: PEI Aquaculture Alliance
Project Number: 09-HAR-073
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2009 - 2011

Project Objective:

Changes made to the Marine Personnel Regulations (SOR/2007-115) (Canada Shipping Act, 2001) in July of 2007 require at least one designated first aider aboard any commercial vessel, regardless of size. For any vessel operating within 25 miles of the shore this means at least one crew member will have had to take and pass the Basic Marine First Aid course. The project will partially fund up to 45 industry members taking the Basic Marine First Aid course to become designated first aids for their boat crews.

Summary of Findings/Project Outcome:

Blythe Murray of CPR First Aid and Safety Services provided the training. Materials were supplied by the instructor and prepared for use in the course. A participant's workbook was prepared and a test administered at the end of the course. A total of two courses were held with 41 people trained and issued with their standard First Aid certificates along with Class C Cardio–Pulmonary Resuscitation Certificates.

Location	Date	Attendees
Kensington	July 2009	28
Charlottetown	January 2011	13
Total		41

The ability to provide safety and first aid training to aquaculturists is of great benefit to the industry as a whole. This allows for safer working conditions and improved professionalization of the industry. Many of our attendees expressed the importance of this course.

Total Project Cost: \$8,150

Funding provided by PEIASC: \$4,775 over one year

Project Contact:

Linda Duncan, Executive Director
Tel: 902-368-2757

74. PEIFA License Rationalization Process

Proponent: PEI Fishermen's Association
Project Number: 09-HAR-074
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2009 - 2010

Project Objective:

The project was designed to support PEIFA members engaged in reviewing, debating and determining a way forward for respective Lobster Fishing Areas around PEI in addressing rationalization and harvesting issues in the DFO-initiated Atlantic Lobster Sustainability Measures program. This is a complex process affecting all PEI lobster harvesters, millions of dollars in subsidies and major adjustments to traditional harvesting methods. The process will continue until at least September 30, 2010.

Summary of Findings/Project Outcome:

As part of the Fisheries and Oceans approach to industry requests for a lobster license rationalization program, in the summer of 2009 DFO announced a \$50-million fund for rationalization and sustainability of the Atlantic lobster industry. As part of this program, lobster fishermen in each Lobster Fishing Area interested in attaining support funding to retire licenses were required to develop rationalization and sustainability proposals for their respective LFA's. Accordingly, the PEIFA applied to PEIASC for support funding to undertake this process in each of LFA-24, 25 and 26-A.

Each of the three LFA's has a Lobster Advisory Committee consisting of one representative of each harbour. These committees are charged with the responsibility of informing fishermen of changes to fishing plans as well as keeping fishermen up to date with information on all aspects of the lobster fishery.

In order to meet the criteria established by DFO it was necessary that the members of each committee meet numerous times to explore a wide variety options that might be proposed under the criteria and the possible affect on fishermen throughout the respective LFA's. This portion of the process required reimbursement for travel costs and room rental for some 60 committee(s) members who met cumulatively on some 20 separate occasions.

Once each LFA advisory committee reached consensus on a proposal, each proposal was then put to the rank-and-file membership through a series of regional meetings. The separate proposals were then discussed, debated and voted upon by the membership in each LFA and subsequently forwarded to DFO for review.

While the negotiating process between each LFA and DFO continues, the proposal development and ratification process funded by the PEIASC project is complete. With approval of up to \$15,000 for the project, each LFA was allocated \$5,000 as its share of the project. With the number of fishers and the number of meetings involved, all of the funds have been utilized. Certainly, the financial support of the PEIASC played a major role in allowing Island lobster

harvesters to properly respond to the DFO rationalization and sustainability criteria in a unified manner.

Total Project Cost: \$15,000

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Ed Frenette, Executive Director, PEI Fishermen's Association
Tel: 902-566-4050

75. Update and Revise the PEI Shellfish Aquaculture Environmental Codes of Practice (SAECOP)

Proponent: PEI Aquaculture Alliance

Project Number: 09-HAR-075

Project Status (Active or Complete): Complete

Project Start/Completion Date: August 2009 - 2010

Project Objective:

The Shellfish Aquaculture Environmental Codes of Practice (SAECOP) are environmental guidelines that were put in place for the Island's industry in 2002. The goal of the SAECOP is to outline recommended shellfish aquaculture practices and to help ensure the industry maintains:

- Environmental responsibility
- Economic viability and
- Maximum product quality

It provides environmental management guidelines for primary off bottom and water column shellfish aquaculture. As a living document it can accommodate any changes in technology and practices. It currently has 278 signatories, the majority of whom are working shellfish farmers.

Five major factors (in no particular order) have contributed to the development of this project:

1. The original SAECOP was due for a complete review in 2007. This is now two years overdue.
2. In 2008 a study was conducted examining the potential for expansion of aquaculture in Malpeque Bay. The report generated by this study had several recommendations, one of which was a review and revision of SAECOP, to ensure its validity as an environmental management tool. Another was the development of compliance monitoring to assess the industry's success in adopting these codes of practice.
3. The mussel industry is about to go through a gap analyses against certification standards and the revised SAECOP will be used as a best practice tool in this exercise to ultimately identify the standard, third party certification body and a certification product.
4. Species at Risk Act (SARA), which came into effect December 2002, was not included in the original SAECOP. The act itself needs to be recognised in the codes and the act's terms and conditions must be reviewed to ensure compliance on the part of the Island's industry.
5. The arrival of several species of Aquatic Invasive Species since 1998 has resulted in several dramatic changes in shellfish farm management practices. There has also been a large amount of research and development done to investigate the biology of these species and ways to mitigate their impact. All this needs to be assessed and codified for inclusion into the SAECOP.

The objectives for this project are:

1. Review SAECOP to identify gaps and updates needed.
2. Prepare revisions and updates required.
3. Print and distribute the revised SAECOP document.
4. Develop a questionnaire/annual checklist to monitor industry compliance with SAECOP.

5. Perform a gap analysis to assess the requirements to include the Island's finfish aquaculture industry in SAECOP

Summary of Findings/Project Outcome:

Crystal McDonald of Carpe Diem Consultants was contracted to perform this review. A Review Committee was formed, made up of partner stakeholders such as DFARD, DFO, TC-NWPA, EC, CFIA etc, and a notice was sent to all SAECOP signatories that the COP was open for review. A draft update was sent to all signatories for review and the final updated code was distributed in March of 2010.

Total Project Cost: \$13,850

Funding provided by PEIASC: \$4,850 over one year

Project Contact:

Linda Duncan, Executive Director, PEI Aquaculture Alliance
Tel:902-368-2757

76. International Conference on Shellfish Restoration

Proponent: PEI Shellfish Association

Project Number: 09-HAR-076

Project Status (Active or Complete): Complete

Project Start/Completion Date: August 2009 - October 2009

Project Objective:

In 2009 the PEI Shellfish Association is hosting the International Shellfish Conference from October 14 – 17 this fall in Charlottetown, PEI. The purpose of this conference, which is held every three years is to assemble world leaders in the enhancement and cultivation of shellfish and give them a forum to exchange views and strategies to enrich efforts to enhance these fisheries.

Summary of Findings/Project Outcome:

Total Project Cost: \$15,000

Funding provided by PEIASC: \$5,500

Project Contact:

Clifford Bernard, President, PEI Shellfish Association
902-831-3374

77. 2009 Herring Fishing Area 16 E & G Acoustic Sounding and Variable Mesh Gillnet Project

Proponent: PEI Fishermen's Association
Project Number: 09-HAR-077
Project Status (Active or Complete): Complete
Project Start/Completion Date: August 2009 -

Project Objective:

Summary of Findings/Project Outcome:

Total Project Cost: \$47,350

Funding provided by PEIASC: \$5,850

Project Contact:

Ed Frenette, Executive Director, PEI Fishermen's Association
Tel: 902-566-4050

78. Fisheries Skills PEI 2009/2010 Training Project

Proponent: PEI Fishermen's Association

Project Number: 09-HAR-078

Project Status (Active or Complete): Complete

Project Start/Completion Date: October 2009 -

Project Objective:

This is a continuation of earlier projects undertaken by the PEI Fishermen's Association and the Prince County Fishermen's Association to assist PEI commercial fishermen receive necessary training. In recent years, Transport Canada has introduced a new regulatory regime demanding that all commercial fish harvesters hold certificates of course completion for a variety of training programs pertinent to specific areas and types of commercial fishing. With the assistance of the PEIASC, the PEIFA/PCFA co-ordinate and subsidize required training programs for PEI commercial fish harvesters

Summary of Findings/Project Outcome:

Total Project Cost: \$ 64,900

Funding provided by PEIASC: \$16,000 over one year

Project Contact:

Ed Frenette, Executive Director, PEI Fishermen's Association
Tel: 902-566-4050

79. Support Funding to Attend 2009 ICCAT Conference

Proponent: PEI Fishermen's Association
Project Number: 09-HAR-079
Project Status (Active or Complete): Complete
Project Start/Completion Date: October 2009

Project Objective:

The purpose of this project is to send two PEI bluefin tuna fishermen to the November 2009 conference of the International Committee for the Conservation of Atlantic Tunas in Brazil. These individuals, Ken Drake and Walter Bruce, will be part of the Canadian delegation. This meeting is of crucial importance to the future of the PEI tuna fishery in that debate will be held on a proposal from Monaco to place giant bluefin tuna in the Mediterranean, eastern Atlantic and western Atlantic under serious trade restrictions. If successful, such a proposal would see the demise of the commercial bluefin tuna fishery in Canada. The PEI Fishermen's Association is a strong advocate of a continued hook-and-line commercial tuna fishery.

Summary of Findings/Project Outcome:

This project was to support the cost of sending two PEIFA bluefin tuna representatives as part of the Canadian delegation to 2009 meetings of the International Commission for the Conservation of Atlantic Tunas in Recife, Brazil. These were crucial meetings affecting the future of the \$2.5-million PEI bluefin tuna fishery discussing possible intervention by CITES to restrict or eliminate the bluefin tuna fishery in the eastern and western Atlantic. Any such restriction would result in the demise of the PEI bluefin fishery.

Total Project Cost: \$ 11,390

Funding provided by PEIASC: \$ 7,590 over one year

Project Contact:

Ed Frenette, Executive Director, PEI Fishermen's Association
Tel: 902-566-4050

80. Development of Aquaculture Management Plans for PEI Aquaculture Areas

Proponent: PEI Aquaculture Alliance
Project Number: 09-HAR-080
Project Status (Active or Complete): Complete
Project Start/Completion Date: January 2010 - 2011

Project Objective:

The purpose of this project was to develop an Aquaculture Management Plan (AMP) for Foxley/Trout River system in response to the PEI Lease Management Board (LMB) decision that certain specific shellfish aquaculture areas would require an AMP to be in place before any further lease conversion applications could be considered. Carpe Diem Consultants were contracted to carry out this project. A survey and notice was distributed to all Foxley/Trout River lease and spat license holders. Consultations with these and other concerned stakeholders took place in the spring and summer of 2010. The report was developed in draft, presented to all leaseholders and consulted stakeholders for approval. It was then presented to the LMB for consideration of the report recommendations.

Summary of Findings/Project Outcome:

Based on the stakeholder feedback and discussions with oyster growers and fishers that took place during this project the following mission and vision statements have been developed.

Mission: To protect and strengthen the ecological, cultural and economical benefits provided by the Foxley and Trout River oyster aquaculture industry while addressing any issues or risks that these same activities may pose to the sustainability of the estuary and surrounding communities.

Vision: The Foxley/Trout River oyster growers will market a superior product that has been grown with due care and attention to the health of the estuary, quality of the shellfish, and needs of the other resource stakeholders and adjacent communities.

For a full list of the recommendations contained within the Aquaculture Management Plan for Foxley/Trout River please contact the PEI Aquaculture Alliance.

Total Project Cost: \$46,100

Funding provided by PEIASC: \$5,000 over one year

Project Contact:

Ronelda MacDonald, PEI Aquaculture Alliance
Tel:902-368-2757

81. Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN)

Proponent: PEI Aquaculture Alliance

Project Number: 10-HAR-081

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2010 - 2011

Project Objective:

The objective of this initiative is to partially support a Research & Development Coordinator (RDC), Peter Warris, within the PEI Aquaculture Alliance. The R&D Coordinator acts as a technical resource to all Alliance members and represent the association in its membership in the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN). The R&D Coordinator role has been instrumental in assisting industry with this ongoing need for research at the local level as well as participating in regional projects, and will continue to to address the aquaculture industry's research and development priorities through the following activities:

- A. Driving industry relevant R&D.
- B. Engage aquaculture businesses in R&D and build collaborations with government agencies, academic institutions, research organizations and other associations.
- C. Support the scientific and technical needs of the industry.
- D. Demonstrate aquaculture's sustainability through science.

Summary of Findings/Project Outcome:

The role of the R&D Coordinator and the ACAIRDN network is to foster the development of industry applicable research and development projects, represent the industry at a variety of forums to communicate R&D priorities and to collaborate within Atlantic Canada to develop projects of regional significance. Throughout 2010-11 the RDC met with over 50 different growers in relation to developing R&D projects, the Oyster development program (SOAR) and relating information on funding opportunities. The RDC represents the association on a number of committees and working groups. Involvement at this level is a key component of the communicating the industry's needs, as well as fostering projects that match up with current R&D Priorities. Also the RDC has assisted in the development of at least seven applications for research projects and workshops, addressing both industry and specific association member priorities.

The impact that ACAIRDN has had is demonstrated by the number of projects and the level of R&D funding that has been secured for the benefit of industry. This is indicative of the leadership role the associations are playing in aquaculture research and development. In 2010 - 2011 there were 10 new projects across the region and 21 ongoing, with a total budget of \$5.4 million. The RDC has been involved to varying degrees in ten projects on PEI and has organised three successful workshops.

Finally the network has communicated with other aquaculture industry associations (e.g. AANS, NAIA, PEIAA, ACFFA, IPSFAD, NBPSGA, BCSGA, BCSFA), has produced a total of 4 newsletter issues and set up a Facebook page at the beginning of the year. All four RDCs now have “work” Facebook pages and the ACAIRDN group page has 47 “friends”. All members can post news articles and links of general interest.

Total Project Cost: \$

Funding provided by PEIASC: \$5,018.42 over one year

Project Contact:

Jarrold Gunn-McQuillan, PEI Aquaculture Alliance
Tel:902-368-2757

82. Bluefin Tuna Catch and Release Trial Fishery

Proponent: PEI Fishermen's Association

Project Number: 10-HAR-082

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2010 - 2011

Project Objective:

Commercial quotas for Atlantic Bluefin tuna in Canadian waters have been reduced in recent years. As a result, the P.E.I. Fishermen's Association representing bluefin tuna fishers is exploring opportunities to add value to their fishery. The fishers propose to create a charter Catch and Release (C&R) fishery to target bluefin tuna off the coast of Prince Edward Island. The high abundance of large fish that are accessible on day fishing trips from Prince Edward Island is unique, and has the potential to attract tourists from around the globe.

Proposed Experiment

In order to licence a C&R fishery, determine the impact of C&R fishing on the stock of bluefin, and to fulfill Canada's international obligations, the PEIFA will collaborate with Department of Fisheries and Oceans (DFO) in a project to quantify the rate of post release mortality of Atlantic bluefin tuna caused by the proposed C&R recreational fishery.

Commercial tuna fishing vessels from the PEIFA will be chosen to participate in the project by the PEIFA. Fifty fish will be caught using standard methods. Fish will be brought to the boat and tagged "over -the side" of the boat at the surface. Survival of the fish after catch and release will be recorded by electronic tags applied to the fish and programmed to release themselves from the fish at a later date. The tags will transmit data to a satellite upon breaking the surface.

Summary of Findings/Project Outcome:

The Prince Edward Island Fishermen's Association has completed a trial fishery project attaching electronic tracking tags to 59 Bluefin Tuna in waters off P.E.I.

Twenty licensed tuna fishermen and their crew from across P.E.I. participated in a two week trial catch and release fishery commencing in August 2010. These fishers caught 59 Bluefin using barbless circle hooks. The fish were fitted with Pop Up Satellite Tags and released to continue their feeding and migration.

Background:

A prospective Live-Release fishery for the sport fishing market has great economic potential for increasing revenues to licenced Bluefin fishers. The objective of the project was to test the feasibility of a Catch & Release fishery for Bluefin to operate alongside the existing fishery without seriously impacting quota share for fishers harvesting Bluefin for the culinary market.

Project Results

As a result of the project, the mortality rate for live release of Bluefin Tuna in a prospective catch and release fishery has been established at 3.4%. A full description of the project is provided in the draft report, "Fate of Atlantic Bluefin Tuna (*Thynnus thynnus*) in an experimental recreational catch-and-release fishery", prepared by Dr. Michael Stokesbury, Canada Research Chair, Acadia University, Dr. John Neilson, Department of Fisheries and

Oceans, Dr. Edward Susko, Dalhousie University and Dr. Steven Cooke, Carleton University. The project results provide a scientific measure of the biological impact of live release fishing on the stock of Bluefin in the Western Atlantic.

According to a statement released by Faith Scattolon, Head of the Canadian Delegation to the 2010 meeting, Nov. 17-27, of ICCAT (the International Committee for the Conservation of Atlantic Tunas) "this research will put Canada in the forefront of developing responsible recreational fisheries by ensuring that incidental mortality associated with catch and release activities is explicitly included in the management of the resource."

The team conducting the project included Dr. John Neilson with DFO Science, Dr. Michael Stokesbury of Acadia University and Mr. Pat O'Neill, consultant to the PEI Fishermen's Association, under direction from the PEIFA Tuna Committee Co-Chairs, Walter Bruce, Kenny Drake and Doug Fraser.

Funding was provided by the Atlantic Canada Opportunities Agency, the Department of Fisheries and Oceans, the PEI Department of Fisheries, Aquaculture and Rural Development, PEI Department of Innovation & Advanced Learning. The PEI Atlantic Shrimp Corp. provided equity funding which facilitated the other grants to the project

Total Project Cost: \$445,090

Funding provided by PEIASC: \$15,000 over one year

Project Contact: Ian MacPherson, Executive Director,
PEI Fishermen's Association
Tel: 902-566-4050

83. 2010 Herring Fishing Area 16 C, E and G Acoustic Sounding and Variable Mesh Gillnet Herring Project

Proponent: PEI Fishermen's Association
Project Number: 10-HAR-083
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2010 - 2011

Project Objective:

This project conducted herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with DFO Science during the 2010 fall inshore herring fishery in HFA 16 E & G.

Summary of Findings/Project Outcome

Selected fish harvesters collected important herring data using acoustic sounding equipment as well as variable mesh gillnets in both Herring Fishing Area 16C&E (Tignish, PEI) and HFA 16G (Fishermen's Bank, PEI). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. The 2010 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Results are also reflected in DFO's annual 4T assessment of Herring in the Southern Gulf of St. Lawrence. For more information regarding this project including summary maps and annual herring reports please contact the PEIFA at (902) 566-4050 or researchpeifa@pei.eastlink.ca .

Total Project Cost: \$47,350

Funding provided by PEIASC: \$3,850 over one year

Project Contact: Ian MacPherson, Executive Director
PEI Fishermen's Association
Tel: 902-566-4050

84. Support Funding to Attend 2010 ICCAT Conference

Proponent: PEI Fishermen's Association

Project Number: 10-HAR-084

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2010

Project Objective:

The International Commission for the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic bluefin tuna quotas to participating countries. In November 2010, the Commission will be holding its deliberative meetings in Paris, France. Through support funding from the PEI Atlantic Shrimp Corporation, the PEI Fishermen's Association has the opportunity of sending one of the co-Chairs of the PEIFA Large Pelagic Advisory Committee as part of the Canadian delegation to the 2010 conference. This fisherman will attend the conference as an observer under the criteria of the Commission adopted in 2005. He will participate in the deliberations by supplying pertinent advice and analysis to Canadian spokespersons on our tuna fishery, as well as, play an important lobbying role with international delegates. The decisions reached in the November meeting will be crucial to the future of Canada's (and PEI's) future quota allocation.

Summary of Findings/Project Outcome:

This project supported the cost of sending two PEIFA bluefin tuna representatives as part of the Canadian delegation to 2009 meetings of the International Commission for the Conservation of Atlantic Tunas in Recife, Brazil. These were crucial meetings affecting the future the \$2.5-million PEI bluefin tuna fishery discussing possible intervention by CITES to restrict or eliminate the bluefin tuna fishery in the eastern and western Atlantic. Any such restriction would result in the demise of the PEI bluefin fishery.

Total Project Cost: \$5,978

Funding provided by PEIASC: \$3,390 over one year

Project Contact: Ian MacPherson, Executive Director
PEI Fishermen's Association
Tel: 902-566-4050

85. Executive Director Interim Funding

Proponent: PEI Shellfish Association

Project Number: 11-HAR-085

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2011 - 2012

Project Objective:

This project enables the P.E.I. Shellfish Association to retain the services of their Executive Director on a part time basis. The goal of this project is to achieve financial self sufficiency for the Association by engaging in projects with administrative and other financial benefits.

The Association also wishes to strengthen its membership base and support of shellfishers. The Executive Director will also engage Shellfishers to promote the Association thereby gaining support for enhancement and other projects.

Summary of Findings/Project Outcome:

Funds from the PEI Atlantic Shrimp Corp. Inc. were provided to the PEI Shellfish Association to assist them in hiring a part time Executive Director. During his engagement he was involved in the mitigation of the Charlottetown sewage run off problems as well as work to take over a trailer park at Hurds Point. Ongoing activities include the transformation of the Western Coastal Drive to be renamed The Oyster Coast. This will involve the revitalization of the Shellfish Museum at Ellerslie.

Total Project Cost: \$36,265

Funding provided by PEIASC: \$16,265 over one year

Project Contact: Clifford Bernard, President
Phone: 902-831-3374

86. ACAIRDN 2011

Proponent: PEI Aquaculture Alliance
Project Number: 11-HAR-086
Project Status: Complete
Project Start/Completion Date: May 2011 - 2012

Project Objective:

The objective of this initiative is to continue to support the Research and Development Coordinator (RDC) position within the PEI Aquaculture Alliance and its participation in the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN). The RDC acts as a technical resource for all industry members in matters related to research, development and adoption of innovative technologies. By continually consulting with association members activities are focused industry priorities. For the 2011-2012 project year these include Science support for the adoption of third party certification programs, Invasive Species, Sea Duck Predation and Technology advancement for farming.

Summary of Findings/Project Outcome:

The Research and Development Coordinators (RDC) act as a technical resource within the industry association, available to all association members. The linkage of a network of RDC's, the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN), enables the industry associations to work more closely together to develop and deliver projects of mutual interest that lead to significant improvements for the industry.

In 2011-12 the PEIAA RDC has been involved in preparing four project applications, managing seven projects to varying degrees and organising four industry workshops. They also represented the PEIAA on multiple different technical committees and working groups and assisted over fifty growers with projects, funding enquiries and program applications and claims. ACAIRDN have hosted three national aquaculture R&D conference calls and published two e-bulletins to over 500 contacts. They also maintain a Facebook page with over 50 members.

Total Project Cost: \$66,192

Funding provided by PEIASC: \$5,635 over one year

Project Contact: Jarrod Gunn-McQuillan, PEI Aquaculture Alliance
Tel:902-368-2757

87. Harvester License Rationalization

Proponent: PEI Fishermen's Association

Project Number: 11-HAR-087

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2011 - 2014

Project Objective:

Rationalization, or the permanent retirement of core fishing licenses, has been the policy of the PEIFA since 2004. With the downturn in lobster landings and the subsequent movement of fishing fleets from the central portion of the Northumberland Strait to harbours in western PEI, the reduction of licenses has been seen as necessary for the economic survival of Island Fishermen.

Rationalization programs are in various stages of completion for LFA 24 and 26A. LFA has completed their initial program and is assessing the results.

These proposals involve the development of:

- a) Rationalization and Sustainability plans
- b) Conduct membership information meetings and votes with the LFA membership
- c) Selection of members for buy out
- d) Submission of these plans to DFO for approval
- e) Co ordinate implementation of the plans when approved

Additional travel and meetings are required to complete phase one projects and prepare for phase two funding requests.

The object of this proposal is to cover the extensive travel and meeting costs for the Advisory Board members of these groups.

Summary of Findings/Project Outcome:

The PEIFA Harvester Rationalization Program is crucial to the ongoing viability of the inshore fishery in Prince Edward Island.

This need to rationalize licenses has been recognized by harvesters, all levels of government and the industry in general.

Since 2011 most areas of PEI have experienced a significant increase in catches. Work continues on improving the financial viability of Island harvesters through this project and other initiatives.

This project directly relates to the core criteria requirement of "development and maintenance of the harvesting sector in PEI"

Total Project Cost: \$45,000

Funding provided by PEIASC: \$30,000 over one year

Project Contact: Ian MacPherson, Executive Director
Tel: 902-566-4050

88. Promotional DVD

Proponent: PEI Fishermen's Association

Project Number: 11-HAR-088

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2011 - 2013

Project Objective:

This project entails the development of a promotional DVD that will help promote the Lobster Fishery on Prince Edward Island. A professional video company will develop a storyline and narrative that highlights the sustainable practices that are used for harvesting lobster on PEI. The intent is to depict the history of our fishery through interviews with selected fishermen capturing the rich past of the fishery. In addition to actual on boat lobster harvesting in our pristine surroundings, the impact and scope of the Lobster industry in PEI will be highlighted. This video is an excellent opportunity to highlight the uniqueness of our smaller local lobster and to celebrate the differences that this high quality lobster brings.

Summary of Findings/Project Outcome:

The "Our Story" video produced by the PEIFA is an accurate depiction of the history and current state of the PEI lobster fishery. Aspects such as conservation, catch methods, trap building and lobster processing are all covered in this video. The video also features also fishers of Prince Edward Island discussing their dedication and commitment to the sustainability and preservation of the fishery.

Total Project Cost: \$10,000

Funding provided by PEIASC: \$5,000 over one year

Project Contact: Ian MacPherson, Executive Director
Tel: 902-566-4050

89. Funding Comparison Study

Proponent: PEI Fishermen's Association

Project Number: 11-HAR-089

Project Status (Active or Complete): complete

Project Start/Completion Date: May 2011 - 2014

Project Objective:

The project is a funding comparison that will compare current PEIFA programs with similar programs in the PEI agricultural and fishing sectors in other Provinces. These programs being compared are promotion and marketing, disaster relief programs and business plan funding for New Entrants.

Summary of Findings/Project Outcome:

The funding comparison report has been completed and has provided a comparison of the funding received by the Agricultural, Aquaculture and Harvester sectors on Prince Edward Island.

This report has been a valuable information source in the subsequent development of a strategic plan for the PEIFA. The harvesting sector on PEI is not receiving an equivalent amount of funding relative to the economic impact that the industry contributes to the PEI economy. The report has also provided detail on how some of these programs work in the other sectors.

Aspects of these programs may be incorporated in future PEIFA proposals as the concept and implementation will already be familiar to those organizations funding such programs.

Total Project Cost: \$4,800

Funding provided by PEIASC: \$4,800 over one year

Project Contact: Ian MacPherson, Executive Director
Tel: 902-566-4050

90. Forklift Training Project

Proponent: PEI Aquaculture Alliance
Project Number: 11-HAR-090
Project Status (Active or Complete): complete
Project Start/Completion Date: 2012-2013

Project Objective:

The objective of this project is to partially fund up to 30 staff members from PEI aquaculture businesses to successfully complete a Forklift Operators course, a legal requirement for forklift operators. Professional development of “on-shore” staff will improve the workplace Health and Safety of these employers (both processors and growers).

Summary of Findings/Project Outcome:

Over the course of the project 29 aquaculture and processing staff have been trained and successfully completed the Forklift Safety Awareness Training Certificate. Under current occupational health and safety regulations forklift operators are required to have proper training. This project assisted growers and processors comply with regulations and minimize workplace accidents.

Total Project Cost: \$2,470

Funding provided by PEIASC: \$ 1,790

Project Contact: Greg Fallon, Executive Director
PEI Aquaculture Alliance

91. Development and Implementation of an Industry Led Environmental Management System

Proponent: PEI Aquaculture Alliance
Project Number: 11-HAR-091
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2011 - 2012

Project Objective:

The objective of this project is to advance the PEI Aquaculture Industry towards successful adoption of a third party sustainability certification. This will be done by addressing key items necessary for growers to pass the audit requirements of such a certification. The objective of Phase 1 will be to engage the PEI Industry in discussions focused on third-party certification and environmental management systems for the purpose of designing an industry-wide strategy.

Summary of Findings/Project Outcome:

Two workshops were held in March 2012, Grower Workshop on Bivalve Sustainability Standards and the Certification Forum, as well as other industry meetings and newsletter articles. The RDC also acted as industry liaison for a project investigating the feasibility of developing a national aquaculture industry certification scheme based on the FAO guidelines. All materials and workshop reports are available upon request.

Total Project Cost: \$8,750

Funding provided by PEIASC: \$4,375 over one year

Project Contact: Greg Fallon, Executive Director, PEI Aquaculture Alliance

92. 2011 Herring Fishing Area 16 C & E and 16G Acoustic Sounding and Variable Mesh Gillnet Herring Project

Proponent: PEI Fishermen's Association

Project Number: 11-HAR-092

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2011 – March 2012

Project Objective:

This project conducted herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with DFO Science during the 2011 fall inshore herring fishery in HFA 16 C&E & 16 G.

Summary of Findings/Project Outcome:

Selected fish harvesters collected important herring data using acoustic sounding equipment as well as variable mesh gillnets in both Herring Fishing Area 16C&E (Tignish, PEI) and HFA 16G (Fishermen's Bank, PEI). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. The 2011 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Results are also reflected in DFO's annual 4T assessment of Herring in the Southern Gulf of St. Lawrence. For more information regarding this project including summary maps and annual herring reports please contact the PEIFA at (902) 566-4050 or visit our website at www.peifa.org.

Total Project Cost: \$60,200

Funding provided by PEIASC: \$5,350 over one year

Project Contact:

Ian MacPherson, Executive Director

Tel: 902-566-4050

93. Defining Optimal Growth Characteristics of Atlantic Halibut on PEI

Proponent: PEI Aquaculture Alliance
Project Number: 11-HAR-093
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2011 - 2013

Project Objective:

This project will determine the management and environmental factors required to reduce the time necessary to grow Atlantic halibut to market size and develop an accurate growth prediction model in order to further develop the halibut aquaculture industry on PEI.

Summary of Findings/Project Outcome:

The project was unsuccessful at manipulating parameters to affect production performance within these trials. All production parameters tested in the future should carefully consider the condition of the stocks used for the trial and the ability to provide and control conditions to ensure no interference with growth of the fish except where intended. Controlled trials are difficult to conduct in a commercial facility due to space restrictions and the constant requirement to grade, harvest and cull populations.

Total Project Cost: \$62,700

Funding provided by PEIASC: \$3,830 over one year

Project Contact:

Greg Fallon, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

94. Exploring Market Opportunities for the Expanding Prince Edward Island Oyster Industry Phase 1: Market Analysis and Marketing Research

Proponent: PEI Aquaculture Alliance

Project Number: 11-HAR-094

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2011 – March 2013

Project Objective:

This project will conduct an analysis of current oyster markets and undertake marketing research to investigate consumer attitudes towards Island oysters. A market analysis report, which will provide recommendations for future marketing efforts for PEI oysters, will be prepared.

Summary of Findings/Project Outcome:

The oyster market in Canada and the US has grown by 5-10% per year for the past several years and is expected to continue. The PEI oyster industry is in an excellent position to seize the opportunities that increased demand presents, with a commanding market presence, strong brand recognition and growing output. The Market Analysis and Research Report resulted in a series of recommendations for future marketing activities, including the following. Develop a positioning strategy linking the oyster experience to a 'way of life' story of PEI and oyster production, communicate PEI's great artisanal, cultural and visual story to tell consumers about the oysters it produces. Focus on consumers and customers in major North American cities, tailored to specific target markets, appealing to lifestyle, ethnicity and culture, also investigate European market.

Total Project Cost: \$63,700

Funding provided by PEIASC: \$9,700 over one year

Project Contact:

Greg Fallon, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

95. Updating the PEI Aquaculture Alliance Strategic Plan

Proponent: PEI Aquaculture Alliance

Project Number: 12-HAR-095

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2012 – February 2013

Project Objective:

The objective of this project is to conduct planning sessions with our boards and interviews with individual industry members and other stakeholders to capture present day challenges and opportunities. The results of these sessions, along with a comparative analysis of existing objectives / accomplishments from 2009 – 2012 strategic plan, will be used to create a current, highly relevant strategic plan for the Alliance that defines strategic priorities with a view of past progress and future needs.

Summary of Findings/Project Outcome:

Using the past plan as a starting point, a methodology was followed that included a detailed review of key documents (e.g. past strategic plan, financial statements, industry priorities), interviews were held with key stakeholders from each industry sectors and with government representatives and sessions were held at the outset of the process to identify key issues for consideration. In addition, an outline of the strategic plan was presented to the PEIAA Board for discussion and review. The work of PEIAA can be defined as being made up of three core strategies: Government and Regulatory Advocacy, Innovation and Competitiveness and Product and Industry Promotion.

Total Project Cost:

Funding provided by PEIASC: \$6,500 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

96. Support for a R & D Coordinator and Related Activities

Proponent: PEI Aquaculture Alliance
Project Number: 12-HAR-096
Project Status (Active or Complete): Complete
Project Start/Completion Date: April 2012 - 2013

Project Objective:

The objectives of this project are to support the RDC position and those activities which focus on the research and development priorities of the PEI Aquaculture Alliance industry members, as well as to sustain their participation in the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN). The activities will focus on the major R&D priorities and specific challenges as defined by aquaculture industry. This will maximize the effectiveness of their support for the scientific and technical needs of the Atlantic aquaculture industry.

Summary of Findings/Project Outcome:

The Research and Development Coordinator (RDC) acts as a technical resource within PEI Aquaculture Alliance, available to all association members. The Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) enables the industry associations to work together to develop and deliver projects of mutual interest that lead to significant improvements for the industry.

In 2012-13 the PEIAA RDC has been involved in preparing seven project applications, managing five projects to varying degrees and organising two industry workshops. Also representing the PEIAA on various technical committees and working groups and assisted multiple growers with projects, funding enquiries and program applications and claims. ACAIRDN have hosted two national aquaculture R&D conference calls and published three e-bulletins. They also maintain a Facebook page with over 100 members.

Total Project Cost: \$

Funding provided by PEIASC: \$10,137 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

97. Strategic Plan Funding

Proponent: PEI Fishermen's Association

Project Number: 12-HAR-097

Project Status (Active or Complete): complete

Project Start/Completion Date: April 2012 - 2013

Project Objective:

The strategic plan will assist in making the PEIFA a more effective organization

The identification and confirmation of key areas of focus, will assist in assessing

- a) emerging industry trends
- b) assessment strategy regarding continuation of trap and license rationalization
- c) development and assessment of harvester led promotion initiatives
- d) new market identification
- e) development of price setting mechanisms

Summary of Findings/Project Outcome:

The PEIFA Strategic Plan is now providing a road map for the organization. This document will assist the current and future Board Members in establishing organizational continuity as personnel changes on the Board of Directors.

In addition, this plan will provide the Executive Director with guidance in the primary areas of focus for the organization and the Executive Director position. The strategic plan component will assist both the Executive Director and the Board in determining future requirements for funding and staffing. It is also be used as a critical tool in establishing priorities and focus of the organization.

Total Project Cost: \$

Funding provided by PEIASC: \$10,000 over one year

Project Contact:

Ian MacPherson, Executive Director

Tel: 902-566-4050

98. Interim Executive Director Support

Proponent: PEI Shellfish Association
Project Number: 12-HAR-098
Project Status (Active or Complete): Complete
Project Start/Completion Date: April 2012 - 2013

Project Objective:

The P.E.I. Shellfish Association is requesting funding from the P.E.I. Atlantic Shrimp Corporation to maintain the services of their Executive Director on a part time basis for a period of one year. The Board believes that the services of the Executive Director are essential to the continued representation of Shellfishers to both governments and the public at large. The part time Executive director will continue to oversee projects in various stages of development and apply for new projects to secure funding for an Executive Director on a full time basis. The need for an Executive Director was outlined in the Organizational Review conducted by McLellan and Associates in 2008.

In addition to regular duties will join Canadian Rivers Institute to assist in their investigation of nitrate loading in rivers on P.E.I. and elsewhere, the production of a film on Canadian Fisheries which will include oysters and the Application to the P.E.I. 2014 Fund to improve the Associations Museum. In addition to continued liaison with the Canadian Council of Professional Fish which will hold a future training needs seminar in Summerside on November 22,2012.

The Executive Director will also take part in meetings with Canadian Independent Fisheries Movement to monitor Federal cuts and changes to Fisheries and other regulations that will impact Shellfishers.

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Clifford Bernard, President
Phone: 902-831-3374

99. Funding Support for a Local PEI Oyster Promotional Campaign

Proponent: PEI Aquaculture Alliance

Project Number: 12-HAR-099

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2012 - November 2012

Project Objective:

The objective of the project is to develop and deliver a promotional campaign in August of 2012 which will use a combination of social media and targeted initiatives in local media to highlight PEI Oysters and engage local restaurants to showcase PEI Oysters on their menus. It will also to develop an interactive map showing how and where to source PEI Oysters.

Summary of Findings/Project Outcome:

The PEI Oyster Society promotional campaign (August 2012) was very successful with 31 restaurants and nine oyster processors participating. A website (www.peioystersociety.ca) and social media was used to promote the campaign and actively engage participants; the social media imprint had a potential reach of over 160,000 people. 70% of all the August interactions were from off-Island, of all ages, including several families with kids trying oysters for the first time. In addition, a number of people incorporated the “Shuck-In” Ceremony into their own group event including a number of wedding receptions.

Total Project Cost: \$39,114.08

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

100. Economic Impact Analysis of the PEI Aquaculture Industry

Proponent: PEI Aquaculture Alliance
Project Number: 12-HAR-100
Project Status (Active or Complete): Complete
Project Start/Completion Date: July 2012 – March 2013

Project Objective:

The objective of the project is to engage a consultant firm with expertise in conducting economic impact assessments to survey key stakeholders and collate available economic data regarding the PEI aquaculture industry. The resulting analysis will provide the PEI Aquaculture Alliance (PEIAA) and other stakeholders with a comprehensive economic picture of the aquaculture industry, including the qualification and quantification of its importance.

Summary of Findings/Project Outcome:

This study provided a comprehensive economic picture of the PEI aquaculture industry and quantified the overall economic importance of the sector to the PEI economy. The methodology included data collection on the direct impact of the aquaculture sector; which was then used to assess the total economic importance of the sector by simulating the backward and forward linkages, conducted using an input-output model of the PEI economy. The PEI aquaculture sector produced \$ 30.3 million of farm gate product value in 2010; the sector produced an additional \$ 193.4 million of indirect and induced value-added processing impact for the PEI economy, for a \$ 223.7 million total impact on the PEI economy.

Total Project Cost: \$27,500

Funding provided by PEIASC: \$22,500 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

101. 2012 Acoustic Sounding and Variable Mesh Gillnet Herring Project

Proponent: PEI Fishermen's Association

Project Number: 12-HAR-101

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2012 - 2013

Project Objective:

This project is designed to conduct herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with DFO Science during the 2012 fall inshore herring fishery in HFA 16 C&E & 16 G.

Summary of Findings/Project Outcome:

Selected fish harvesters collected important herring data using acoustic sounding equipment as well as variable mesh gillnets in both Herring Fishing Area 16C&E (Tignish, PEI) and HFA 16G (Fishermen's Bank, PEI). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. Participants in the project also recorded detailed observations including male/female ratios, spawning stages, school details, weather conditions, etc.

The 2012 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Results are also reflected in DFO's CSAS Science Advisory Reports for assessment of 4T Herring in the Southern Gulf of St. Lawrence (CSAS 2012 -014). For more information regarding this project including a summary report as well as the latest 4T Herring Stock Assessment publication, please contact the PEI Fishermen's Association at (902) 566-4050 or visit our website at www.peifa.org.

Total Project Cost: \$19,850

Funding provided by PEIASC: \$5,850 over one year

Project Contact:

Ian MacPherson, Executive Director

Tel: 902-566-4050

102. Support Funding to Attend 2012 ICCAT Conference

Proponent: PEI Fishermen's Association

Project Number: 12-HAR-102

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2012 – November 2012

Project Objective/ Summary of Findings/Project Outcome:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 9th to 21st, 2012 the Commission held its deliberative meetings in Agadir, Morocco. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association attended and participated in this meeting alongside the Canadian Delegation.

The Canadian Delegation attending the Special Meeting of ICCAT was especially busy during the 2012 deliberations. Alongside Japan, Canada advocated for a slight increase from 1750T to 2000T yet was not able to achieve this. A variety of proposals were put forth but agreement could not be made at this meeting. A roll over of 1750T for the Western Atlantic Total Allowable Catch was set and ICCAT will meet again in 2014 to discuss once again. More effort will be made in terms of future research and science on the Bluefin tuna populations to further validate the number of tunas witnessed in the Gulf. All Canadian Delegates including Ken Drake took time to meet with various NGOs to discuss the sustainable fishing practices in Canada and the populations they've been witnessing. A published report on the 18th Special Meeting of ICCAT can be found at http://www.iccat.int/Documents/BienRep/REP_EN_12-13_I_1.pdf and any questions on the meeting can be forwarded to Ken Drake by contacting the PEIFA Office at 566-4050.

Total Project Cost: \$7,536

Funding provided by PEIASC: \$5,036 over one year

Project Contact:

Ian MacPherson, Executive Director

Tel: 902-566-4050

103. Developing and Testing an Integrated Pest Management Protocol to Mitigate Sea Duck and Waterfowl Predation on PEI Mussel Farms

Proponent: PEI Aquaculture Alliance

Project Number: 12-HAR-103

Project Status (Active or Complete): Conditions Pending before final approval

Project Start/Completion Date: September 2012 -

Project Objective:

Summary of Findings/Project Outcome:

Total Project Cost: \$99,600

Funding provided by PEIASC: \$4,000 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

104. Developing and Testing an Innovative Mussel Sock Configuration to Prevent Sea Duck Predation

Proponent: PEI Aquaculture Alliance

Project Number: 12-HAR-104

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2012 - 2017

Project Objective:

The objective of this project is to develop and manufacture a prototype mussel sock and field test its effectiveness in preventing bird predation of seed mussels in new socks. The proposed design uses two stages of disintegrating material to form the sock, the prototype uses cotton threading but other possibilities will be investigated. The mesh will be small enough to prevent the mussels from migrating out through the sock, thereby protecting them from bird predation. The first stage “zipper” will control the width of the sock tube, allowing it to be varied during production as required. This first stage is intended to disintegrate within the first two weeks of the socks being in the water, allowing the sock to expand and giving the seed mussels room to grow. The second stage will be longer lasting to hold the flat sheet of mesh in its tube formation. It is intended to break down after two-three months (i.e. whilst the socks are wintering under the ice), freeing the mussel seed for continued growth once the danger of duck predation has passed.

Summary of Findings/Project Outcome:

The project’s initial aim, to test a “zipper” style sock, was amended to look at different socking material configurations after no initial interest from local gear manufacturers. Utilizing an innovative dry socking system from Italy these test socks were deployed. Unfortunately due to circumstances beyond the control of the project proponents the trials were abandoned and no final data was collected. Further testing would be warranted on different materials, dependent upon the adoption of the new socking process by the industry.

Total Project Cost: \$6,750

Funding provided by PEIASC: \$6,750 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

105. Developing a Coordinated Response Plan to MSX

Proponent: PEI Aquaculture Alliance

Project Number: 12-HAR-105

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2012 – August 2014

Project Objective:

The objective of this workshop is to develop a draft Response Plan and identify knowledge gaps and priorities for a possible introduction of MSX; utilising the experience and expertise of aquaculture and oyster fishery industry partners from areas that have already been infected. Presenters include: Government, industry and scientists involved in recent MSX outbreaks in the US and Nova Scotia; also the Canadian Food Inspection Agency on the new National Aquatic Animal Health Program (NAAHP), domestic disease control and emergency protocols. Discussion would focus on the development of a response plan for PEI, including; immediate and long term responses, roles and responsibilities, funding, legislative authority, identify knowledge gaps and R&D Priorities

Summary of Findings/Project Outcome:

The workshop was conducted January 16th, 2013. A number of recommendations were identified by the participants prevent the introduction of MSX, to prepare for a potential introduction and to address knowledge gaps about the disease.

Total Project Cost: \$20,000

Funding provided by PEIASC: \$4,850 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

106. Pilot Project Request – Technical Support

Proponent: PEI Fishermen's Association
Project Number: 12-HAR-106
Project Status (Active or Complete): Complete
Project Start/Completion Date: December 2012 - 2013

Project Objective:

The primary function of this technical support position is the co-ordination and issuing of trap and net tags in fisheries that require this control measure. The tag distribution function was downloaded to industry by the Federal Department of Fisheries and Oceans (DFO) as of December 31 2012.

Summary of Findings/Project Outcome:

The primary economic benefits realized from this project have been lower mark up costs on tags supplied to the fishing community. The PEIFA has a tag accounting system that is accessible and transparent. There are for profit options in the marketplace and it is critical that fishers have a lower cost option in these times of intense economic pressure and low financial returns. As a non profit organization, it is the intent of the PEIFA to conduct this operation on primarily a cost recovery basis.

Total Project Cost: \$40,000

Funding provided by PEIASC: \$40,000 over one year

Project Contact:

Ian MacPherson, Executive Director
Tel: 902-566-4050

107. Sea Lettuce Testing Project

Proponent: PEI Shellfish Association
Project Number: 13-HAR-107
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2013 - 2014

Project Objective:

The primary objective of Project 13-HAR-107 (Sea Lettuce Testing Project) is to determine the value of sea lettuce as a potential energy-producing material to be utilized as bio-digester fuel. Given the growing abundance of sea lettuce in PEI rivers and estuaries, as well as the potential of this material as a fuel source, the removal of sea lettuce from our water systems could prove to be environmentally as well as economically viable.

Summary of Findings/Project Outcome:

PEI Shellfish Association received funding support from the Department of Fisheries, Aquaculture and Rural Development and the PEI Atlantic Shrimp Corporation for a project to test sea lettuce for its potential to be used as a biofuel in the Cavendish Farms bioreactor. Officials from the Association and the Department of Fisheries, Aquaculture and Rural Development had previously met with representatives from Cavendish Farms to discuss the potential to use the algae species as a biofuel and learned that a laboratory analysis of the plant material was necessary to determine if it would meet the specifications required for use in their bioreactor. A funding proposal based on these discussions was submitted. PEI Shellfish Association was successful in receiving approval for up to \$4,500 in funding toward the cost of such an analysis.

ADI Systems Inc., a laboratory in Fredericton, NB was contracted by PEI Shellfish Association to conduct the testing of the algae and samples were sent to the laboratory in July, 2013. A Sea Lettuce Treatability Testing Summary was received in January, 2014.

PEI Shellfish Association, in collaboration with the PEI Department of Fisheries, Aquaculture & Rural Development continue to review and analyze the results with representatives of Cavendish Farms to determine potential next steps.

Total Project Cost: \$5,100

Funding provided by PEIASC: \$2,250 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

108. Interim Executive Director Support

Proponent: PEI Shellfish Association
Project Number: 13-HAR-108
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2013 - 2014

Project Objective:

The PEI Shellfish Association will secure services of an interim Executive Director to serve immediate needs of the Association. While the Association constantly continues to keep abreast of issues facing the shellfishery, the membership requires a methodology and mechanisms to acquire and share such relevant issues. The Executive Director will optimize opportunities and forums to address this need for information transfer.

Good practice procedures need to be implemented with regard to record keeping and bookkeeping. The Executive Director will implement the necessary procedures.

The Executive Director will be involved in the rationalization of Association staffing to ensure cost efficiencies while continuing the important work of enhancement, operation of Hurds Point and involvement with other industry association such as Canadian Council of Professional Fish Harvesters.

Identification of new opportunities for the shellfishery while continuing to be engaged and to monitor existing ones e.g. the Sea Lettuce Project will be addressed by the Executive Director.

Summary of Findings/Project Outcome:

The Association took a professional approach in order to secure the services of an Executive Director. Dick MacDonald was hired to assist in the search for potential candidates. Board and committee meetings were held, position advertised and interviews held. Greg McKee was hired with extensive experience in organization and community development. The knowledge of our Board in the fishery combined with McKee's skills combines to facilitate a positive direction for our organization.

Our new Executive Director became involved immediately in our organization rationalization. Some of the activities initiated and assisted by our director include:

- Attending related sector and event meetings
- Conducting fisher information meetings, east and west
- Preparing EI presentation on Premier's panel on EI reform
- Identifying member benefit opportunities, eg Health Care benefits for members
- Preparing funding applications for summer staffing, infrastructure improvements
- Preparing guidelines for operations at facilities owned by the Association, Hurts Point, Ellerslie Fisheries Station
- Preparation and facilitation of a number of Board Meetings, inclusive to AGM.
- Acted as conduit to initiate meetings that promoted the efforts of the Association and demonstrate the important role provided to shell fishers.

- Set up Home Office for Association

The position has provided cohesive and constructive insight into the continuance of the Association in a positive direction.

PEI Department of Fisheries and Aquaculture also provided funding.

Total Project Cost: \$35,200

Funding provided by PEIASC: \$11,137.50 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

109. Quality Improvement Pilot Project for LFA 25

Proponent: Prince County Fishermen's Association

Project Number: 13-HAR-109

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2013 – 2015

Project Objective:

The objective of the Lobster Quality Improvement Project is to seek an effective system that will ensure the best conditioned lobster reach the wharf even when ambient and water temperatures are above normal. Improved quality has opportunity to provide the harvester with a better return on the lobster landed.

The Lobster Quality Improvement Pilot Project aims at evaluating the effectiveness of several different lobster storage systems for onboard use including the testing of specified onboard cooling units. With the trend of warmer water and ambient water temperatures, it is imperative that storage systems be researched to insure the viability of the lobster fishery on PEI. The project will use criteria that evaluate the performance of the boats with the cooling systems to those without. Criteria such as similar travel distances and catch rates will be considered. In addition these systems would also be compared to other methods of on board storage that are being used at present. Research will be conducted throughout the 2013 LFA 25 fall lobster fishing season on PEI and a report on the findings will be released. For more information on the project, contact Lee Knox, President of the Prince County Fishermen's Association at (902) 882-3894 or by email lvknox63@gmail.com.

Summary of Findings/Project Outcome:

This project was scheduled to be completed with two rounds of three days, in one fishing season. Unfortunately, weather did not permit for this so the trial was carried out over two fishing seasons. The first season only had a two day trial due to weather so there was no clear standout in terms of "best practice." On one day the lobsters held in ice appeared to gain fewer new wounds compared to the other treatment groups, while on day two it was those held in surface water flow-through that appeared to have the best results. In either case the chiller system did not finish with the best results. The following season all three days were completed. Looking at each parameter separately, those held on ice showed fewer new wounds (similar to the first round of sampling). All other parameters, vigour, water quality and number of mortalities (weight) appeared better in the flow through water treatment group.

Total Project Cost: \$22,500

Funding provided by PEIASC: \$22,500 over one year

Project Contact:

Lee Knox, President
902-882-3894

110. Executive Director – Core Funding Support

Proponent: PEI Aquaculture Alliance
Project Number: 13-HAR-110
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2013 - 2014

Project Objective:

The Executive Director (ED) is responsible for effectively managing the organization's operations: liaising with the Board, members, commodity organizations, federal/provincial governments and the general public. Implementation of the Alliance's 2012-2015 Strategic Plan is progressing and various initiatives under research, education, advocacy and promotion are being pursued. Continued focus on the environment, growing the sustainable success of our industry, driving important research initiatives that realize more innovation on our farms, mitigating Aquatic Invasive Species and Duck Predation are just a few of the important initiatives for 2013-14.

Summary of Findings/Project Outcome:

The Strategic Plan is the guiding document that maintains the association's focus on industry priorities, continuing its implementation is a key part of the ED role. This includes activities related to improving the regulatory environment governing aquaculture; maintaining and enhancing government services for industry and developing and leading member learning and networking opportunities. Maintaining the growing environment our growers operate in is another important topic, highlighting the importance of water quality and estuarine health through targeted presentations and media communications help communicate this and share the value of the industry. Driving increased productivity at the farm level is another key goal to increasing farm profitability. Enhanced awareness and promotional efforts is an important stream of activity with broad based positive impacts to the entire aquaculture supply chain.

Total Project Cost: \$78,750

Funding provided by PEIASC: \$11,137.50 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

111. Aquatic Invasive Species and Aquatic Disease Prevention Education and Awareness Activities

Proponent: PEI Aquaculture Alliance
Project Number: 13-HAR-111
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2013 - 2014

Project Objective:

The objective of this project is to renew the PEIAA education and awareness activities related to AIS and expand them to include information related to the prevention of the spread or introduction of aquatic diseases such as MSX. Activities would include updating existing AIS educational resources to include some or all “high risk” potential invasive species and aquatic diseases, liaising with partner groups to organise presentations and educational opportunities, such as boat cleaning demonstrations, at meetings and workshops for industry members and attending “aquatic related” festivals and events such as local fishery festivals, boat shows and yacht club races to distribute materials and educate recreational boat users and the general public about AIS and aquatic diseases.

Summary of Findings/Project Outcome:

A number of different outreach activities were conducted including yacht clubs, harbour authorities, boat suppliers and haulers, as well as the Moncton and Charlottetown boat shows. The AIS website www.aquaticintruders.com was revised and updated, including the functionality of the content management system (CMS) to allow for future edits and additions. A new promotional graphic was created to address the aquatic disease issue in relation to boat owners and others.

The existing design for the harbour sign was revised and the new high risk species added. Thirty five copies of the sign were produced and distributed. The text and content of existing educational handouts was revised and updated to focus more on new AIS species possibly impacting PEI. These handouts were distributed to recreational boaters at a number of boat shows and at local yacht clubs and marinas.

Total Project Cost: \$21,125

Funding provided by PEIASC: \$10,562 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

112. Use of poly (vinyl siloxane) to control invasive tunicate fouling : A field-based study

Proponent: PEI Aquaculture Alliance
Project Number: 13-HAR-112
Project Status (Active or Complete): complete
Project Start/Completion Date: May 2013 -

Project Objective:

The objective of this study is to evaluate the performance of poly (vinyl-siloxane) (PVS) and poly(dimethyl siloxane) (PDMS) as fouling release compounds in decreasing tunicate fouling at field sites where invasive tunicates are dominant; and to gauge their effectiveness as a fouling release coat by testing for differences in attachment strength of fouling organisms.

Summary of Findings/Project Outcome:

After two field seasons at a number of sites in Nova Scotia and PEI it was concluded that the PVS formulation used did not significantly impact the force required to remove fouling, however further studies on this type of material are warranted in the future as an alternative to biocide based antifoulant treatments.

Total Project Cost: \$30,000

Funding provided by PEIASC: \$3,000 per year over two years (\$6,000)

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

113. MSC Review

Proponent: PEI Fishermen's Association & PEI Seafood Processors Association

Project Number: 13-HAR-113

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2013 - 2015

Project Objective:

Although Prince Edward Island was one of the first areas to have a MSC pre assessment completed on its' lobster industry over four years ago, the stakeholder group felt that completion of an updated scorecard would be beneficial before a full MSC assessment took place. There have been a number of deficient areas that have been addressed in the period since the pre assessment was completed. In addition, most MSC certifications have not involved the harvesting sector as a certificate holder. There was a desire on PEI to have the Processing, Harvesting and First Nations included on the MSC certificate. The hiring of a specialized industry consultant resulted in the completion of the scorecard. In addition the consultant has been a resource person for stakeholder questions as different assessment criteria apply to the harvesting sector and plant and consumer supply chain.

Summary of Findings/Project Outcome:

The MSC pre assessment of the PEI lobster fishery has been completed. The lobster fishery is now ready for full MSC assessment under the following criteria: health of the fish stock, marine ecosystem protection and effective fishery management. A working group has been stuck that includes members of the PEI Fishermen's Association, PEI Seafood Processors and representation from the Lennox Island and Abegweit First Nations. This group will review the pre assessment findings and implement action plans on any items that do not have estimated scores over 60 in the 31 assessment categories.

Total Project Cost: \$

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

114. 2013 Herring Fishing Area 16 C & E and 16G Acoustic Sounding and Variable Mesh Gillnet Herring Project

Proponent: PEI Fishermen's Association
Project Number: 13-HAR-114
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2013 - 2014

Project Objective:

This project conducted herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with DFO Science during the 2013 fall inshore herring fishery in HFA 16 C&E & 16 G.

Summary of Findings/Project Outcome:

Selected fish harvesters collected important herring data using acoustic sounding equipment as well as variable mesh gillnets in both Herring Fishing Area 16C&E (Tignish, PEI) and HFA 16G (Fishermen's Bank/North Lake, PEI). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. Participants in the project also recorded detailed observations including male/female ratios, spawning stages, school details, weather conditions, etc.

The 2013 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Industry continues to play an important role in fisheries science and have been active participants in DFO science reviews. The latest 4T Herring Stock Assessment was reviewed on March 11-12th, 2014 in Moncton, NB. Fisheries science and consultation with stakeholders in the herring fishery play a vital role in the decision making process for resource management including establishing the total allowable catch (TAC) as well as other important management decisions and conservation measures. All information gathered on herring is assessed and discussed in detail during these reviews. The finalized report is due to be published through the Canadian Science Advisory Secretariat (CSAS) in the near future. Publications of CSAS reports can be found at www.dfo-mpo.gc.ca and will be posted on the PEIFA website www.peifa.org as soon the report is available.

The data collected through the Acoustic Sounding and Variable Mesh Gillnet project is the basis of a recent publication entitled; Nightly Biomass estimates from acoustic data collected during the 2002-2012 herring gillnet fishing activities on fall spawning aggregations in the Southern Gulf of St. Lawrence by Claude Leblanc in the Canadian Technical Report of Fisheries & Aquatic Sciences (http://publications.gc.ca/collections/collection_2013/mpo-dfo/Fs97-6-3040.pdf) . The report discusses the use of the acoustic information for providing annual indices in linking local management decisions and spawning component sustainability.

Total Project Cost: \$ 47,350.00

Funding provided by PEIASC: \$5,850.00 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

115. Halibut Life History and Population Genetics in the Southern Gulf of St. Lawrence

Proponent: PEI Fishermen's Association

Project Number: 13-HAR-115

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2013 - 2017

Project Objective:

The Atlantic Halibut Life History & Population Genetics Project aims to determine the state of the population, the migration patterns and the breeding grounds of this valuable fish. Information will be gathered by using a variety of tools, and mainly focussed on two components. The first component will be a tagging study using traditional spaghetti tags and satellite pop up tags to determine migration patterns, growth rates and behavioural information. A separate longline effort chartered by licensed fishers will be used to tag and measure halibut off PEI and throughout closely adjacent fisheries management zones. The second component involves the use of genetic and otoliths microchemistry endpoints in order to look at the genetic structure of the population in the Gulf of St. Lawrence. Collection of otoliths (inner ear drum) and small clippings of the fin from halibut landed in the commercial and sentinel fishery will be analysed using DNA microsatellite techniques.

If research verifies that a separate meta-population exists within the Gulf, the evidence will support the federal Department of Fisheries & Oceans to pursue management of halibut in the southern Gulf separately and sustainably. This development will improve the economic viability of PEI fishers for years to come.

Summary of Findings/Project Outcome:

The Atlantic Halibut (*Hippoglossus hippoglossus*) research project undertaken by the Prince Edward Island Fishermen's Association (PEIFA) in conjunction with researchers from Department of Fisheries & Oceans (DFO) and the University of Prince Edward Island (UPEI) aimed to answer several critical questions about the species within the Southern Gulf of St. Lawrence (NAFO areas 4R, 4S, 4T) and increase understanding about its movements within the region; as well as its immigration/emigration/migration to and from the region.

A total of 612 Atlantic halibut were tagged with conventional anchor tags and another 20 were tagged with Satellite archival tags (PSATs) on over 77 at-sea trips during the duration of the project. This halibut data collection initiative is the largest of its kind in the southern Gulf of St. Lawrence. Fin clip samples were also obtained for genetic sampling purposes. Information gathered throughout the project has been shared with local fish harvesters and partners, including the Department of Fisheries & Oceans.

Through the project, it has been established that the majority of fish accessed by PEI fish harvesters appear to be found in close to the same places after a year at large, with a small component which seems to disperse to other areas. Given that all the satellite tagged fish occupied depths overwinter that far exceed those surrounding Prince Edward Island, it suggests that the fish we find around PEI are migrating out to overwinter in deep waters, before returning to shallow waters for the summer and fall. The high frequency of returning fish, along with the very

close proximity of recaptures to original tagging locations suggests that there may be some sort of homing instinct.

Despite relatively high number of returning or apparent resident fish, even low levels of mixing between fish from different areas would be sufficient to provide genetic continuity. However, this is contingent on fish spawning where they disperse and not returning to their original area. Currently we have evidence that fish from our study have been spawning in the deep channel waters, most likely within the Laurentian channel based on depth and pop-off information. It is entirely possible that halibut from other areas also congregate in these bottom waters to spawn. If this is true, then it is possible that there is indeed a large spawning pool for the entirety of the Gulf. However, the mechanisms of larval drift and settlement are still unclear. It is unclear where offspring of a fish that was tagged near and returned to the southern Gulf would end up. Identifying spawning timing and location has supplied the tools to design a study to answer this question. The question of production and recruitment are critical to the overall assessment of this stock.

Regardless of it there is a genetic distinction for fish in the Southern Gulf of St. Lawrence, being able to estimate the approximate range of emigration between years will allow managers to better predict the health of the population within that region from year to year. The high rate of halibut returning seems to indicate that dispersal is non-random or that there is some feature that is continually drawing fish back to the same areas. Similar trends in fish being recaptured close to the tagging locations have been found for halibut in most other studies in Canada. It's possible that this indicates residency for fish in other areas where conditions may allow them to remain year-round, but in the Southern Gulf, the cold winter temperatures and shallow waters make this unlikely. The project would suggest that Atlantic Halibut in the Southern Gulf probably migrate to the deeper waters of the Laurentian and the adjacent deep waters near Cape Breton for the overwintering period, and that a large proportion of these fish make a return migration to shallow summer feeding grounds.

For more information on this research project and the ongoing activities in halibut science in the southern Gulf, please contact Laura Ramsay or Melanie Giffin, with the PEI Fishermen's Association at (902) 566-4050.

Total Project Cost: \$ 207,680.00

Funding provided by PEIASC: \$ 49,000.00 over three years

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

116. A Program to Mitigate Sea Duck and Waterfowl Predation on PEI Mussel Farms

Proponent: PEI Aquaculture Alliance
Project Number: 13-HAR-116
Project Status (Active or Complete): Complete
Project Start/Completion Date: October 2013 - 2014

Project Objective:

The Alliance seeks to engage the services of a Sea Duck Program Coordinator to research potential mitigation methodologies, coordinate the testing of mitigation efforts such as the proposed underwater acoustical deterrent system and participate in bird surveys during the active phase of the sea duck predation season.

Summary of Findings/Project Outcome:

Project funds were used to engage the services of Bob Thompson as Sea Duck Program Coordinator as a technical resource for growers dealing with this issue; as well as researching potential mitigation methods and engage with growers and other partner to assess these, including the acoustical deterrent “Phoenix Wailer” system purchased by the project. The concept of a sanctuary area was also actively pursued, though ultimately proved unworkable at this time. Finally Bob engaged in multiple bird surveys during the active phase of the sea duck predation season, with this information being communicated to growers to help direct their mitigation efforts.

Total Project Cost: \$73,440.00

Funding provided by PEIASC: \$15,000.00 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

117. Investigation of Continuous Rope Socking for Mussel Grow-out on Prince Edward Island

Proponent: PEI Aquaculture Alliance
Project Number: 13-HAR-117
Project Status (Active or Complete): Complete
Project Start/Completion Date: December 2013 - 2017

Project Objective:

The objective of the project is to demonstrate that continuous socking technique can improve mussel production on Prince Edward Island and determine the optimal socking characteristics (*i.e.* socking density, seed size, cotton mesh type, etc), as well as evaluating the level of protection provided by the biodegradable cotton mesh provides from sea duck predation and compare the current grow-out model (single socks) to continuous socking; in terms of production and cost.

Summary of Findings/Project Outcome:

There are several rationales for trialing the NZ continuous rope system for mussel culture, prevention of sea duck predation, tunicate management, farm efficiencies and waste management. The initial cost of the NZ continuous rope is significantly higher than the cost of socking material currently used by the PEI mussel industry. However, after the NZ continuous rope has been acquired in the first year, the materials cost drops below that of the socking material currently in use by the industry. We've estimated the annual cost for the current socking material in use to be approximately \$19,200 for a 50-acre lease. In contrast, the cost to implement the NZ culture system on a 50-acre lease would be approximately \$52,800 for the first year. For subsequent years, the only material cost would be for the seeding material (cotton/polyester mesh), which is estimated to be \$9,600 per year. This is half the annual materials cost as compared to the current socking materials requirement.

Total Project Cost: \$81,600

Funding provided by PEIASC: \$9,040.00 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

118. Request for Support Funding to Attend 2013 ICCAT Conference

Proponent: PEI Fishermen's Association
Project Number: 13-HAR-118
Project Status (Active or Complete): complete
Project Start/Completion Date: September 2013 -

Project Objective:

The International Commission for the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic bluefin tuna quotas to participating countries. From November 18th to 25th, 2013 the Commission will be holding its deliberative meetings in Cape Town, South Africa. More information on the 23rd Regular Meeting of the Commission can be found at www.iccat.es/ including a tentative agenda and meeting updates. Mr. Ken Drake, Chair of the PEI Fishermen's Association's Tuna Advisory Committee, will attend the ICCAT conference as an observer under the criteria of the Commission adopted in 2005. At the same time, he will participate in the deliberation, supply pertinent advice and analysis to Canadian spokespersons on our tuna fishery as well as play an important lobbying role with international delegates. Information gathered from the meeting will be shared with fellow harvesters through the PEIFA, as well as with the PEI Atlantic Shrimp Corporation and the PEI Department of Fisheries, Aquaculture and Rural Development.

Summary of Findings/Project Outcome:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. In November 2013, the Commission held its deliberative meetings in Cape Town, South Africa. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association attended and participated in this meeting alongside the Canadian Delegation.

This was the 23rd Regular Meeting of ICCAT where overall Bluefin tuna quotas were being discussed and scrutinized by close to 50 countries. At meeting end, ICCAT was not prepared to recommend any changes to the Bluefin tuna quotas. The Standing Committee on Research & Statistics (SCRS) provides scientific information to ICCAT and it was clarified that without solid science they cannot recommend an increase in quota.

Both Japan and Canada agreed to pursue needed science and would work on a proposal moving forward. It was also decided that the next inter-session meeting of ICCAT would be in Canada and is a great honor and accomplishment of the Canadian delegation. It is at these proceedings that the science proposal will be developed and should take place in July, 2014.

The following link also gives a brief summary of the meeting as well as other ICCAT highlights: http://www.iccat.int/Documents/newsletter/NEWSLETTER_ENG_19.pdf

For more information on the meeting, please contact Ken Drake or the PEIFA at (902) 566-4050.

Total Project Cost: \$ 7,990

Funding provided by PEIASC: \$ 4,500 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

119. Preparation for a Fisheries Training Database

Proponent: PEI Council of Professional Fish Harvesters

Project Number: 13-HAR-119

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2013 – February 2014

Project Objective:

The purpose of this project will be to document the feasibility of constructing a fisheries training course database. Such a database will enable training providers to plan and schedule training courses where the numbers who have completed these courses are fewer than what is required. For example, all Island core fishermen are required by Transport Canada to have taken a Marine Emergency Duties course, a radio operator's course and a Small Vessel Proficiency course. The database will permit training providers to see where deficits in compliance exist and also where there are high levels of compliance. This first feasibility study will determine if the development of a database is possible.

Summary of Findings/Project Outcome:

The purpose of this project was to determine the feasibility of a Fisheries Training database. Holland College in Summerside has obtained a list of core and commercial fishermen to utilize to develop the database. Other trainers, such as Power Squadron and Coast Guard Auxiliary have been asked for their numbers of people trained by county. When complete, work on the database will begin.

Total Project Cost: \$2,300

Funding provided by PEIASC: up to \$2,300 over one year

Project Contact:

Edwin McKie
902-583-2017

120. Developing an Oyster Biosecurity Plan

Proponent: PEI Aquaculture Alliance

Project Number: 13-HAR-120

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2013 – July 2015

Project Objective:

The objective for this project is to develop biosecurity and contingency plans; inclusive of both cultured and wild harvested oysters that will help the PEI oyster industry protect itself from disease and minimize the impact of disease such as MSX in the event of an outbreak. This plan will complement the pertinent provincial and federal regulations (e.g. Introductions & Transfers (I&T), National Aquatic Animal Health Program (NAAHP)) to ensure the most effective risk mitigation and communication possible.

Summary of Findings/Project Outcome:

The biosecurity plan was developed to help the PEI shellfish industry protect itself from disease and minimize the impact of disease in the event of an outbreak. It includes:

- Shellfish Industry Directory which identifies harbours and processors in each bay, as well as public fishery and aquaculture contacts.
- Mass mortality reporting protocols; what to do in case of a mass mortality event or any other situation that may raise suspicion of a disease outbreak. A wallet card was also produced covering key points.
- MSX Fact Sheet detailing impacts and how to minimise the risk of introduction.
- Results of the product movement survey conducted highlighting high risk potential paths of introduction of MSX to PEI.
- Comprehensive literature review of MSX, its history, causes and review of current research.

Total Project Cost: \$19,000.00

Funding provided by PEIASC: \$9,500.00 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

121. Fisheries Training Database

Proponent: PEI Council of Professional Fish Harvesters

Project Number: 14-HAR-121

Project Status (Active or Complete): Complete

Project Start/Completion Date: February 2014 – August 2014

Project Objective:

This part of the project will confirm that the database by establishing a letter of understanding between Holland College our Council and other Training providers such as the Prince County Fishermen's Association.

This project will involve a meeting with Transport Canada to determine what future training will be required for Harvesters until 2016 and possible beyond that if other regulations are tabled. We will concentrate on enhancing the database for mandatory courses by adding the numbers of people trained by non Holland College Training Courses such as *Wave Skills* , *The Coast Guard Auxiliary*, *P.E.I.F.A.R.D.* and possibly others.

This part of the project will seek to identify non mandatory training courses a seek a host to document them.

Summary of Findings/Project Outcome:

The project was designed to assist training providers by enabling them to identify what courses were required as well as what courses will be required in the near future.

This project had three objectives:

- To identify the numbers of fishermen who are in compliance with mandatory Transport Canada training requirements.
- Identify future mandatory training requirements
- Identify training providers and training courses for fishermen.

The project was successful in that it was able to obtain an up to date 2014 list of all registered fishermen and provide it to Holland College, enabling them to build the Database. A list of training requirements which will be required in 2015 and 2016 was also obtained and is listed in our final report.

We were able to identify "Wave Skills," "The Coast Guard Auxiliary," and "Holland College" as providers of mandatory training courses and we were able to obtain all of the online training discs from The Canadian Council of Professional Fish Harvesters.

While the project was not completed, our Council is committed to its completion as funds become available to physically construct the database.

Total Project Cost: \$4,560

Funding provided by PEIASC: \$4,560 over one year

Project Contact:

Edwin McKie
902-583-2017

122. Lobster Quality and Handling Workshop Series

Proponent: PEI Fishermen's Association

Project Number: 14-HAR-122

Project Status (Active or Complete): complete

Project Start/Completion Date: February 2014 - 2015

Project Objective:

The following are the project objectives for the series of lobster handling workshops on PEI.

Lobster health is directly related to the timing of the moult which, in turn, can be affected by a number of different components including water temperature, diet and other ecosystem factors. A certain amount of time is necessary after a moult for the lobster to return to ideal health conditions (hard shelled/fully meated). Collection of biological data such as hemolymph (blood) protein levels, moult stage and shell hardness, gives us the opportunity to make assumptions as to which lobsters are in the best health for long term shipping and holding. However, factors other than biological ones can impact lobster quality. Handling plays a major part in lobster health as it is passed along the chain-of-custody. Handling practices will cause changes in the lobsters' physiological state and therefore, put stress on the animal. A lobster can only undergo a certain amount of stress before it will just not survive, even when placed in a recovery tank. When it comes to understanding lobster health, and in turn quality, it is important to remember that there are large numbers of components affecting health, all of which must be taken into consideration when making decisions regarding health. This starts with understanding the basic biology of the animal and expanding on that knowledge.

This training workshop series is designed to do just that: start with the basics and work up to understanding what blood protein and moult cycle can tell us, what impact handling has on lobster quality and what can be done to maximize quality. The session will be divided into different parts, including lobster biology (30 min), quality assessment (30 min) and impacts of handling practices on quality (45 min). A question & general discussion period will follow the session, which will last a total of between 2 to 3 hours.

Summary of Findings/Project Outcome:

The Quality & Handling Training sessions aimed at improved knowledge in lobster biology and handling practices that will no doubt improve quality standards across PEI. This training workshop series was designed to begin with the basics and work up to understanding what blood protein and moult cycle can tell us, what impact handling has on lobster quality and what can be done to maximize quality. The session was divided into different parts, including lobster biology, quality assessment and impacts of handling practices on quality. A question & general discussion period followed each session. Jean Lavallee and Melanie Griffin with Aquatic Science & Health Services Inc. developed, facilitated and delivered the workshop series.

A total of 10 workshop sessions were completed in various communities around PEI. 8 sessions were held in March-April, 2014 ahead of the LFA 24/26A spring lobster season. The final 2 sessions were held in July, 2014 ahead of the LFA 25 Fall lobster season. Approximately

225 participated in the workshop sessions including mainly fish harvesters but also crew members, plant managers and employees, transport workers, Government representatives.

For more information on this workshop series, please contact the PEI Fishermen's Association at 902-566-4050 or www.peifa.org

Total Project Cost: \$10,440

Funding provided by PEIASC: \$ 5,470 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

123. PEI Shellfish Association Executive Director

Proponent: PEI Shellfish Association
Project Number: 14-HAR-123
Project Status (Active or Complete): complete
Project Start/Completion Date: April 2014 - 2015

Project Objective:

The objective of our project was to retain the services of an Executive Director to continue the emergence of the Association as an important voice for Public Fishers. The funded position administered the day-to-day operation of the assistance of office staff and contracted accountant. Activities involved in, but not limited to, included preparation of briefs, funding applications, and correspondence. The position provides an important role for the Association.

Summary of Findings/Project Outcome:

Total Project Cost: \$69,000

Funding provided by PEIASC: \$10,312.50 over one year

Project Contact:

Brenda Campbell, President
902-831-3374
Email: peishellfish@aibn.com

124. PEI Aquaculture Alliance Executive Director

Proponent: PEI Aquaculture Alliance

Project Number: 14-HAR-124

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2013 – April 2015

Project Objective:

The Executive Director (ED) is responsible for effectively managing the organization's operations: liaising with the Board, members, commodity organizations, federal/provincial governments and the general public. Implementation of the Alliance's 2012-2015 Strategic Plan is progressing and various initiatives under research, education, advocacy and promotion are being pursued. An updated Strategic Plan for 2015 onwards will be completed to help prioritize activities. Continued focus on the environment, growing the sustainable success of our industry, driving important research initiatives that realize more innovation on our farms, mitigating Aquatic Invasive Species and Duck Predation are just a few of the important initiatives for 2014-15.

Summary of Findings/Project Outcome:

The ED work plan for 2014-15 is comprised of continuous operating activity in the core areas, which fall into 3 broad categories; Governance / Regulatory Affairs, Innovation and Competitiveness and Product and Industry Promotion. Improving the operational policy and regulatory environment was an important focus this year, with participation in local, regional and national committee structures and consultation processes. Maintaining pristine, nutrient rich waters to so that our members can continue to grow and produce high quality aquaculture products continues to be an important priority. Driving interest, demand, followers and fans of PEI Aquaculture products through enhanced awareness and promotional efforts is an important stream of activity with broad based positive impacts to the entire aquaculture supply chain.

Total Project Cost: \$

Funding provided by PEIASC: \$10,312.50 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

125. Membership/Public Information Tools

Proponent: PEI Shellfish Association

Project Number: 14-HAR-125

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2014 – December 2014

Project Objective:

To enhance information tools available to the association to transmit information to members and those seeking out information on the activities of the Association, the first activity being to re-establish a workable web site to service both these needs.

The present web site has not been updated for many years, and due to initial construction, became rapidly obsolete. A call for photos about our fishery, clams, quahogs and oysters will go out for relevant photos. Updated narratives will be completed and submitted.

Summary of Findings/Project Outcome:

Established a new website that is user friendly and easily modified to accept current activities - www.peishellfish.ca. A twitter account also has been established with 300 followers in a short time period - #shellfishpei. A Facebook page was created in our attempts to keep our members informed and engaged. During the work on the website it became very evident that our branding, logo, product offerings had become very dated, as a result a new logo for the website was designed and will assist in rebranding efforts of the Association.

Total Project Cost: \$4,752

Funding provided by PEIASC: \$4,000 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

126. Training and Professional Development Program for the PEI Aquaculture Industry

Proponent: PEI Aquaculture Alliance
Project Number: 14-HAR-126
Project Status (Active or Complete): Active
Project Start/Completion Date: April 2014 -

Project Objective:

The objective of this project is to support the PEI aquaculture industry in safety related training and professional development through a one year pilot program administered by the PEIAA for the benefit of all its members. Costs for the individual courses would be cost shared with the industry on a 50/50 basis, not including travel expenses and taxes. PEIAA members identify specific courses or particular training needs to the Program Administrator.

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$6,300 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

127. The Commercialization of Sustainable Land-Based Atlantic Halibut Aquaculture

Proponent: PEI Aquaculture Alliance
Project Number: 14-HAR-127
Project Status (Active or Complete): Pending
Project Start/Completion Date: April 2014 -

Project Objective:

Summary of Findings/Project Outcome:

Total Project Cost: \$3,311,661

Funding provided by PEIASC: \$26,748 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

128. Strategic Plan, Bylaw Revisions, Policy Manual

Proponent: PEI Shellfish Association
Project Number: 14-HAR-128
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2014 -

Project Objective:

To develop and implement a strategic plan that will enhance the ability of Prince Edward Island Shellfish Association to effectively serve its members and meet the ever changing needs of the public fishers of Prince Edward Island.

Summary of Findings/Project Outcome:

Total Project Cost: \$14,696.00

Funding provided by PEIASC: \$14,696.00 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

129. ThisFish Marketing Possibilities for PEI Seafood – Introduction & Opportunities for PEI

Proponent: PEI Council of Professional Fish Harvesters

Project Number: 14-HAR-129

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2014 -

Project Objective:

This project is a traceability initiative that will work towards launching a local PEI marketing initiative for lobster and oysters for the 2015 tourist season using **ThisFish** traceability. It will recruit and engage PEI lobster and oyster retailers and identify the value chain from the retailer to the harvester. Festivals and events throughout PEI will be identified and contacted with a view to identifying opportunities to showcase these two fisheries.

Summary of Findings/Project Outcome:

Total Project Cost:

Funding provided by PEIASC: \$12,500 over one year

Project Contact:

Edwin McKie
902-583-2017

130. Installation of a Highway Sign for the PEI Shellfish Biosecurity and AIS Awareness

Proponent: PEI Aquaculture Alliance

Project Number: 14-HAR-130

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2014 – February 2015

Project Objective:

The PEI Aquaculture Alliance will install a sign on the highway leading to the Confederation Bridge to educate members of the public and shellfish shippers about the necessity for all Molluscan shellfish transfers to have federal approval.

Summary of Findings/Project Outcome:

Working with the New Brunswick department of Transportation and Infrastructure - Maintenance and Traffic Branch, a suitable location was located for the sign. The wording for the sign was prepared in collaboration with DFO and DFARD and within the word limit prescribed by the sign size. The sign was installed on October 7th, 2014.

Total Project Cost: \$

Funding provided by PEIASC: \$5,000

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

131. Survey of PEI Shellfish Growers to Assess Current and Anticipated Future Production Levels

Proponent: PEI Aquaculture Alliance

Project Number: 14-HAR-131

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2014 – May 2015

Project Objective:

The objective of this project is to gather information regarding the current and estimated cultured oyster production levels, as well as some additional data. This will be used to create a current picture of the cultured oyster industry and facilitate Island growers and processors to plan future market development efforts and assess the pace of growth of the industry.

Summary of Findings/Project Outcome:

To better understand the level and pace of oyster production in response to anticipated market demand members were sent a questionnaire on past and planned future production. On average, approximately 40% responded, representative of small, medium and large producers. The majority indicated they planned to increase production over the next three years, with over 60 percent planning to acquire addition leases to produce choice grade oysters. The average annual increase in production could amount to 400 to 500 thousand pounds. Respondents were supportive of continuation of government programs directed at assisting with the growth of the industry. Assistance for the acquisition of equipment was a top priority, while the adoption of new technologies and controlling fouling were highly rated. As well, respondents were supportive of programs to assist the industry in attracting and retaining workers.

Total Project Cost: \$

Funding provided by PEIASC: \$4,450 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

132. The American Lobster in a Changing Ecosystem: A Canada – U.S. Science Symposium 2015

Proponent: PEI Fishermen's Association
Project Number: 14-HAR-132
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2014 - 2015

Project Objective:

The PEI Fishermen's Association will be welcoming scientists representing academia, government, resource managers, industry and fishermen to "The American Lobster in a Changing Ecosystem: A Canada-US Science Symposium 2015" to participate in scientific sessions on current research on the American lobster in Charlottetown, November 3 – 6, 2015. This is the continuation of the inaugural US-Canada Science Symposium held in Portland, Maine, in November 2012.

The symposium will examine the lobster and its environment at progressively increasing scales starting with individual lobsters, lobster population dynamics, and the ecosystems lobsters inhabit. Presentations, both oral and poster formats, are anticipated to encompass the diverse, yet interconnected, topics of biology, physiology, response to environmental and man-made stressors, food webs, invasive species, lobster health and disease, climate change, ocean acidification, and management strategies. Unique to the 2015 meeting will be a special session, "The Business of Fishing Lobster" which will discuss the changing environment facing industry.

For more information, please contact the PEI Fishermen's Association at 902-566-4050 or lobster_symposium@crustipath.com

Summary of Findings/Project Outcome:

A special issue of the journal Fisheries Research, highlighting the symposium is anticipated to be published on or before November 2016. The complete scientific program, including abstracts, is available now, in PDF format at:

<https://www.regonline.com/custImages/400000/409575/LobsterSymposiumProgramFINALforwebshort10272015.pdf>

Total Project Cost: \$

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

133. Request for Support Funding to Attend 2014 ICCAT Conference

Proponent: PEI Fishermen's Association
Project Number: 14-HAR-133
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2014 - 2015

Project Objective:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 10th – 17th, 2014, the Commission will hold its deliberative meetings in Genoa, Italy. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association will be attending and will participate in this meeting through the Canadian Delegation.

This is the 19th Special Meeting of ICCAT where overall Bluefin tuna quotas will be discussed and scrutinized by close to 50 countries. For more information on the ICCAT meeting, click on the following link: <https://www.iccat.int/en/Commission2014.htm> or contact the PEIFA Office at 902-566-4050.

Summary of Findings/Project Outcome:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 10th – 17th, 2014, the Commission held its deliberative meetings in Genoa, Italy. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association attended and participated in this meeting through the Canadian Delegation. Following the meetings Ken Drake submitted a summary of the proceedings with supporting documents.

This was the 19th Special Meeting of ICCAT where overall Bluefin tuna quotas were discussed and scrutinized by close to 50 countries. For more information on the ICCAT meeting, click on the following link: <https://www.iccat.int/en/Commission2014.htm> or contact the PEIFA Office at 902-566-4050.

Total Project Cost: \$

Funding provided by PEIASC: \$ 2,500 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

134. PEI Oyster Aquaculture Mission to B.C. and Washington State

Proponent: PEI Aquaculture Alliance

Project Number: 14-HAR-134

Project Status (Active or Complete): complete

Project Start/Completion Date: December 2014 – May 2015

Project Objective:

The PEI Aquaculture Alliance is organizing an oyster aquaculture industry mission to British Columbia and Washington State. This will be a technical, fact finding mission with some networking opportunities and will provide the opportunity for delegates to observe alternate methods, technologies and processes related to some key industry priorities such as hatchery raised seed, grow out methods and equipment and processing.

Summary of Findings/Project Outcome:

The PEI Aquaculture Alliance organized an oyster aquaculture industry mission to British Columbia and Washington State in February 2015. This was a technical, fact finding mission with some networking opportunities and provided the opportunity for delegates to observe alternate methods, technologies and processes related to some key industry priorities

Total Project Cost: \$

Funding provided by PEIASC: \$5,467.50 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

135. Investigating Environmental Factors that Influence Mussel Productivity

Proponent: PEI Aquaculture Alliance
Project Number: 15-HAR-135
Project Status (Active or Complete): Complete
Project Start/Completion Date: March 2015 - 2017

Project Objective:

The objective of this project is to collect and analyze phytoplankton and other water quality data to identify potential environmental factors influencing mussel productivity. This will be done in two parts; a historical review of phytoplankton slides to identify and quantify phytoplankton species from mussel growing areas and water quality monitoring, using four units on loan from UPEI, as well as the purchase of additional units.

Summary of Findings/Project Outcome:

Six new water quality meters were acquired and utilized during this project. There was a significant amount of data collected in mussel growing areas, which continued to be collected after the end of the project. This is new information that has not previously been collected on a consistent basis. The value of this data will increase as more data is collected and annual trends become more apparent. The collection of water samples for chlorophyll analysis is still needed to calibrate the water quality meters to ensure the accuracy of the measurements taken by the meters. As a result of this project several changes are being made to the Provincial Department of Agriculture and Fisheries Mussel Monitoring Program, to ensure that the data collected is comparable between years and between growing areas. These changes and consistent collection of additional water quality data will better enable the industry to explain changes in productivity in future years.

There are a variety of factors that influence mussel productivity; ultimately, it comes down to two main factors; the amount of food available in the water column for grazing and the number of grazers (mussels) utilizing the food. This project focused on the food levels in the water column through historical phytoplankton analysis and water quality data. Climate data has also been investigated to determine if there are any obvious differences between years, specifically with temperature and precipitation. This data has been related to meat yield data from the Mussel Monitoring Program (MMP).

This project has increased the monitoring capacity that is available to characterize the waters that mussels are grown in and it has also had the benefit of bringing attention to current methods of monitoring productivity within these areas (meat yields in the MMP). Moving forward, there will be better baseline data on water quality in many mussel growing areas and more representative data on productivity.

Total Project Cost: \$160,669

Funding provided by PEIASC: \$67,596 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

136. Core Funding Support for the R & D Coordinator Position

Proponent: PEI Aquaculture Alliance

Project Number: 15-HAR-136

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2015 - 2016

Project Objective:

The objectives of this project are to support the activities of the Research and Development Coordinator (RDC) whose primary focus is on the research, development and technology transfer / education priorities for the PEI Aquaculture Alliance (PEIAA) and its membership in the PEI aquaculture industry. These priorities are clearly stated within the PEIAA Strategic Plan authorised by the Association Board of Directors. This project will also support the Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) and the PEIAA's contribution to this organization.

Summary of Findings/Project Outcome:

The Research and Development Coordinator (RDC) acts as a technical resource within PEI Aquaculture Alliance, available to all association members. The Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) enables the industry associations to work together to develop and deliver projects of mutual interest that lead to significant improvements for the industry.

In 2015-16 the PEIAA RDC has been involved in preparing four project applications and managing five projects to varying degrees. Also representing the PEIAA on various technical committees and working groups and assisted multiple growers with projects, funding enquiries and program applications and claims.

Total Project Cost: \$

Funding provided by PEIASC: \$16,700 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

137. Prince Edward Island MSC Lobster Stakeholder Association

Proponent: PEI Fishermen's Association

Project Number: 15-HAR-137

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2015 - 2016

Project Objective:

The project consists of the organizational set up of a non-profit company to oversee the use of the Prince Edward Island Lobster MSC certificate with industry buyers of PEI MSC certified lobster in Atlantic Canada. This project is jointly submitted by Prince Edward Island Fishermen's Association, The PEI Seafood Processors Association and the Abegweit and Lennox Island First Nations. One of the primary drivers for the PEI lobster industry to obtain MSC certification is to maintain existing markets that require this certification. In addition, new markets are developing that are focussed on obtaining seafood from sustainable sources. MSC is a global standard for resource sustainability.

Summary of Findings/Project Outcome:

The PEI MSC Lobster Stakeholder Association Inc. has been formally set up and includes the following members:

1. Prince Edward Island Fishermen's Association
2. Prince Edward Island Seafood Processors Association
3. Lennox Island First Nation
4. Abegweit First Nation
5. The Native Council of Prince Edward Island

The organization oversees the use of the Prince Edward Island MSC certificate in the sale of PEI MSC certified lobster by industry buyers. In addition this organization coordinates annual certification audits that are required to maintain the MSC certificate for Prince Edward Island.

Total Project Cost: \$

Funding provided by PEIASC: \$6,000 over 1 year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

138. Lobster Quality & Handling Workshop Series 2015

Proponent: PEI Fishermen's Association
Project Number: 15-HAR-138
Project Status (Active or Complete): Complete
Project Start/Completion Date: April 2015 – July 2015

Project Objective:

This training workshop series is designed to begin with the basics and work up to understanding of what blood protein and moult cycle can tell us, what impact handling has on lobster quality and what can be done to maximize quality. The session is divided into different parts, including lobster biology (30 min), quality assessment (30 min) and impacts of handling practices on quality (45 min). A question & general discussion period to follow each session. Jean Lavallee and Melanie Griffin with Aquatic Science & Health Services Inc. developed the workshop series and also facilitate and deliver the training.

A total of 5 workshops are to be completed in various communities around PEI. 4 sessions were held in April, 2015 ahead of the LFA 24/26A spring lobster season. The final session will be held in July, 2015 ahead of the LFA 25 Fall lobster season.

Summary of Findings/Project Outcome:

As per the project proposal a total of 5 sessions were held throughout the island. Four sessions were held in April, 2015: 2 sessions were held at the Farm Centre, 1 at the Fortune Community Centre and 1 at the Alberton Curling Club, and the final one was held in July, 2015 at the O'Leary Legion.

Sessions were open to anyone who handles lobsters. The majority of attendees were harvesters, but there were also QA/QC personnel in attendance at a few workshops. Attendees learned how to maintain lobster quality throughout the chain-of-custody, helping to make certain Prince Edward Island lobsters are steadily of the highest quality.

Total Project Cost: \$5,665

Funding provided by PEIASC: \$ 2,832.50 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

139. Live Lobster Handling and Holding Guideline Study

Proponent: PEI Fishermen's Association

Project Number: 15-HAR-139

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2015 - 2016

Project Objective:

The project is the commissioning of a Live Lobster Handling and Holding Guideline study that will produce recommendations for the storage of live lobster on a short term basis. Live holding could also act in support of existing processing capacity. For example, the PEI Lobster Industry review determined that 2013 lobster landings averaged approximately 480,000 lbs per day while processing capacity averaged 315,000 – 380,000 lbs per day. This deficit in capacity resulted in the necessity to place quotas on boats in some areas as well as substantial movement of product to off island processors.

In short, additional live holding capacity on PEI could help stabilize shore prices by diverting some product to alternate markets (i.e. live markets), and by acting as a buffer between landings overflow and processing capacity. In addition, expanded live holding capacity could help processors spread out their processing activities, thereby extending the processing season.

However, before moving forward with live lobster holding on PEI, the industry requires an understanding of the biological requirements of lobster, proper quality control practices, proper handling and holding practices, effective inventory management protocols and finally, a detailed description of the various holding technologies, including the pro, cons and limitations associated with each.

Summary of Findings/Project Outcome:

The study commissioned regarding best practises for short to medium term live lobster holding is now complete. The focus of this study was to provide some best practise information to harvesters that wish to hold live lobster for short to medium periods of time. In recent years lobster buyers and plants have not always been able to take all harvester catches on a day to day basis.

This study provides useful information so that fishers can keep their live lobster in the healthiest condition until plants and buyers are able to take their inventory.

Total Project Cost: \$

Funding provided by PEIASC: \$5,000 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

140. Pilot Project to Assess the Use of Drones to Mitigate Sea Duck Predation on PEI Mussel Farms

Proponent: PEI Aquaculture Alliance

Project Number: 15-HAR-140

Project Status (Active or Complete): Complete

Project Start/Completion Date: April 2015 – December 2015

Project Objective:

The objective of this five day pilot project is to assess the effectiveness and practicality of using drones or unmanned aerial vehicles (UAV) as a method of deterring sea duck predation.

Summary of Findings/Project Outcome:

During the five-day trial there were only two days of flights due to bad weather. Initial conclusions were promising, but should be taken cautiously. Winds were fairly constant (20-40 km/hr), but the equipment performed well. On the only two occasions where birds were the drone was deployed and birds took off. On both successful occasions, birds did not return to the location from where they were disturbed. They were observed to fly considerably far away from said location, and in fact, were seen much closer to shore. In either case, there were between 15-30 ducks.

Total Project Cost: \$

Funding provided by PEIASC: \$7,600 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance

[Tel:902-368-2757](tel:902-368-2757)

141. PEI Shellfish Association Core Funding and Training Support

Proponent: PEI Shellfish Association
Project Number: 15-HAR-141
Project Status (Active or Complete): Complete
Project Start/Completion Date: April 2015 - 2016

Project Objective:

There are two objectives in this proposal, to development and implement training modules for shell fishers that are user friendly, relative to their role in the shellfish industry and time sensitive. To assist the shellfish association executive with research and development of material that will enable the PEISA to communicate more effectively with industry, fishers and government.

The program support position will identify methods of communication that will be used by the PEISA Association and shell fishers to engage in meaningful dialogue to improve future program planning. It will also provide access to information necessary for shell fishers to adjust to industry and Government changes that will affect them. We will also address the the role they play in the continued efforts to ensure a food safe industry.

As we continue working towards professionalization, a training plan will be developed. The training structure will be user friendly and facilitated in a manner that does not interfere with the fisher's ability to earn a living.

Summary of Findings/Project Outcome:

PEIASC funding allowed the PEI Shellfish Association to offer industry required, Marine safety training for Harvesters. Courses were cost shared with the PEISA, PEIASC, Skills PEI. The PEISA was able to offer training to 52 participants, also creating a waiting list for 2016/2017. The program support position also assisted with professional development within the Association and the industry it represents. This position is ongoing and continues to be an asset for the PEI Shellfish Association.

Total Project Cost: \$58,670

Funding provided by PEIASC: \$33,690 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

142. Support for a Communications Project Manager and the Development of an Alliance Education, Communications & Social Media Strategy

Proponent: PEI Aquaculture Alliance
Project Number: 15-HAR-142
Project Status (Active or Complete): Complete
Project Start/Completion Date: August 2015 - 2016

Project Objective:

The project has nine areas of focus:

1. Developing Educational focused Promotion, Communication & Social Media Strategy
2. Develop compelling, professional story ideas and targeted messages for both traditional and digital media distribution.
3. Develop a communications calendar that supports and compliments the seasonal activities of our industries.
4. Update current print and electronic materials that promote the PEI Aquaculture industry
5. Integrate new materials into various online sources and social media platforms (e.g. Facebook, Twitter, You Tube, LinkedIn)
6. Media and Special Interest Tours and Education,
7. Improve Alliance staff and member knowledge through media and communications training.
8. Update media asset library by capturing new professional imagery with industry photos and video content.
9. Update existing website to be more mobile friendly and integrated into social media platforms.

Summary of Findings/Project Outcome:

The PEI Aquaculture Alliance Communications and Social Media Strategy project's activities were divided into the following categories: Educational, Media Relations, Print and digital material, Social Media, Website and Events. The project conducted a number of activities including a high school visit, production of four promotional videos (Finfish, Oysters and Mussels, plus aquatic invasive species), regular Facebook posts and tweets to increase the Alliance's social media presence and attendance at the Festival of Small Hall events, Northumberland Fisheries Festival and the Tyne Valley Oyster Festival.

Total Project Cost: \$39,858.56

Funding provided by PEIASC: \$13,873 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

143. Investigating PEI Oyster Industry Best Practices to Control *Vibrio parahaemolyticus*

Proponent: PEI Aquaculture Alliance
Project Number: 15-HAR-143
Project Status (Active or Complete): Complete
Project Start/Completion Date: August 2015 - 2017

Project Objective:

The objective of this project is to

1. Investigate some practical “best practices” for oyster harvesters which could be implemented to reduce the temperature abuse experienced by oysters during normal harvesting and storage activities.
2. Investigate the impact of current handling and storage practices of Vp levels
3. Investigate the impact of air drying biofouling control on Vp levels

Summary of Findings/Project Outcome:

The two years of field trials provided valuable information for industry and government. Some of these results further support the existing body of evidence, while other trials investigated questions that were less widely explored in the literature. As with all research work, there are additional questions that arise as well as new insights discovered that would improve with further investigation.

Total Project Cost: \$66,000

Funding provided by PEIASC: \$23,000 over one year

Project Contact:

Ann Worth, Executive Director PEI Aquaculture Alliance
[Tel:902-368-2757](tel:902-368-2757)

144. 2015 Herring Fishing Area 16 C & E and 16 G Acoustic Sounding & Variable Mesh Gillnet Project

Proponent: PEI Fishermen's Association
Project Number: 15-HAR-144
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2015 -

Project Objective:

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$2,625 over one year

Project Contact:
Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

145. Prince Edward Island MSC Stakeholder Association – MSC Audit Cost Sharing

Proponent: PEI Fishermen's Association
Project Number: 15-HAR-145
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2015 - 2016

Project Objective:

The project request is for supplementary funding to assist in the payment of Year One Marine Stewardship Council (MSC) audit costs for the PEI lobster fishery. The PEI MSC Lobster Stakeholder Association Inc. has generated some year one funds towards this expense, however funding will not cover all costs associated with the initial audit.

It is expected in subsequent years that annual fees paid by sellers of PEI MSC certified lobster will cover more of these audit costs. In addition negotiations are taking place to have the entire Gulf region assessed at one time. Currently, the Nova Scotia and New Brunswick lobster fisheries have not completed their MSC certification.

Summary of Findings/Project Outcome:

The PEI MSC Lobster Stakeholder Association Inc. has been able to negotiate with 3rd party certification SAI Global and have the initial audit date of November 2015 delayed. This has enabled the New Brunswick and Nova Scotia MSC organizations to participate in their initial audit at the same time. The combining of the two audits has been a contributing factor in reducing overall audit costs which was an objective of this project. Additional lobster buying companies are now contributing funds towards future audits and the year two audit has been tentatively scheduled for April 2017.

Total Project Cost: \$

Funding provided by PEIASC: \$12,000 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

146. Expansion to Current Enhancement of the PEI Public Shellfish Grounds with Hatchery-Produced Seed

Proponent: Fisherman's Pride, Inc.
Project Number: 15-HAR-146
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2015 - 2017

Project Objective:

This project will provide support to the important ongoing work of the PEI Shellfish Association (PEISA), by partnering with and providing an expansion of their ongoing Oyster Development Program.

This pilot program will support re-activation of the Bideford Marine Centre as a shellfish hatchery, specifically to provide early season, disease-free oyster seed for expansion of the PEISA's floating-raft nursery facilities. This seed will be grown based on select broodstock provided to the hatchery by the Association.

Summary of Findings/Project Outcome:

Lennox Island shellfish hatchery pilot project (now the Bideford River Shellfish Hatchery) was a great success proving that the Bideford facility, now owned by Lennox Island First Nation, could be utilized as a modern shellfish hatchery. With financial assistance from the PEI Shrimp Corporation, Mi'kmaq Confederacy of PEI and the Lennox Island First Nation Band, the hatchery completed a pilot project to spawn oysters on a small scale right on site. The financial assistance was used for the purchase of equipment, wages for 2-4 workers, and supported the startup of a continuous algal production room. The pilot project provided the impetus to acquire funding from various funders to construct a full production, state of the art shellfish hatchery for PEI. The hatchery has capacity to provide oyster, quahaug, soft shell clam and bay scallop spat. Partnerships were developed with the PEI Shellfish Association and the PEI Aquaculture Alliance which will see the hatchery supporting both the wild fisheries and the cultured aquaculture industry. Hatchery seed production will provide earlier seed supply for industry, opportunities for disease control, superior quality selection through genetics, and a way to efficiently enhance the wild oyster populations.

Total Project Cost: \$

Funding provided by PEIASC: \$22,000 over one year

Project Contact:

Mike Randall, CEO, Lennox Island Development Corporation
Tel: 902-831-2770

147. Fisher Educational Project - Vibrio

Proponent: PEI Shellfish Association

Project Number: 15-HAR-147

Project Status (Active or Complete): Active

Project Start/Completion Date: September 2015 -

Project Objective:

To educate shellfish harvesters within their own environment. To develop user-friendly, correct and relevant information (Vibrio) with qualified professional technical guidance re: general information pertaining to *Vibrio parahaemolyticus* (Vp) including the post-harvest handling of shellfish and the relevance and importance on time and temperature abuse. Food safety assurances top priority.

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$10,000 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

149. Support Funding – 2015 ICCAT Conference

Proponent: PEI Fishermen's Association

Project Number: 15-HAR-149

Project Status (Active or Complete): Complete

Project Start/Completion Date: November 2015

Project Objective:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 10th to 17th 2015, the Commission held its deliberative meetings in St. Julian's, Malta. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association attended and participated in this meeting through the Canadian Delegation.

This is the 24th Regular Meeting of the Commission where overall Bluefin tuna quotas will be discussed and scrutinized by close to 50 countries.

For more information on the ICCAT meeting, click on the following link:

<https://www.iccat.int/com2015/index.htm>

or contact the PEIFA office at 902-566-4050

Summary of Findings/Project Outcome:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 10th to 17th 2015, the Commission held its deliberative meetings in St. Julian's, Malta. Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association attended and participated in this meeting through the Canadian Delegation.

The following link gives a brief summary of the meeting as well as other ICCAT highlights:

https://www.iccat.int/Documents/newsletter/NEWSLETTER_ENG_23.pdf

While this link gives the full proceedings of the 24th Regular Meeting of the Commission:

https://www.iccat.int/Documents/BienRep/REP_EN_14-15_11-1.pdf

For more information on the meeting please contact Ken Drake or the PEI Fishermen's Association at 902-566-4050

Total Project Cost: \$7,790

Funding provided by PEIASC: \$4,674 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA

Tel: 902-566-4050

150. Lobster Quality & Handling Workshop Series 2016

Proponent: PEI Fishermen's Association
Project Number: 15-HAR-150
Project Status (Active or Complete): Complete
Project Start/Completion Date: January 2016 - 2017

Project Objective:

This training workshop series is designed to begin with the basics and work up to understanding of what blood protein and moult cycle can tell us about the biology of lobster. Understanding the biology of the lobsters also explains what impact handling has on lobster quality and then, what can be done to maximize quality. The session is divided into different parts, including lobster biology (30 min), quality assessment (30 min) and impacts of handling practices on quality (45 min). A question and general discussion period followed each session. Jean Lavallee with Aquatic Science & Health Services Inc. developed the workshop series and will also facilitate and deliver the training.

A total of 5 workshops are to be completed in various communities around PEI. Four sessions will be held in April, 2016 ahead of the LFA 24/26A spring lobster season. The final session will be held in July, 2016 ahead of the LFA 25 Fall lobster season.

Summary of Findings/Project Outcome:

As per the project proposal a total of 5 sessions were held throughout the Island:
April 7th: Alberton Curling Club, 10:00 a.m.
April 11th: Red's Corner, 10:00 a.m.
April 12th: North Rustico Lions Club, 11:00 a.m.
April 15th: Farm Centre, Charlottetown 10:00 a.m.
July 26th: O'Leary Legion, 6:00 p.m.

Sessions were open to anyone who handles lobsters. The majority of attendees were harvesters, but there were also QA/QC personnel in attendance at a few workshops, representatives from Sobey's as well as buyers working on the wharves. Attendees learned how to maintain lobster quality throughout the chain-of-custody, helping to make certain Prince Edward Island lobsters are steadily of the highest quality.

Total Project Cost: \$5,665

Funding provided by PEIASC: \$3,165 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

151. Determination of Hemolymph Biochemistry Reference Intervals in American Lobsters

Proponent: PEI Fishermen's Association

Project Number: 16-HAR-151

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2016 - 2017

Project Objective:

The project proposed in this application would utilize a unique data set – hemolymph samples collected at sea within five minutes of trap hauling, limiting air exposure/emersion times and possible lobster handling artifacts. Such data should best reflect the adult/commercial lobster in its natural environment and therefore be an ideal benchmark, or baseline, for initial comparison of the effect of other situations that lobster may be exposed to e.g. dryland or tidal impoundment, various shipping and handling practices, exposure to toxins/pesticide such as agricultural run-off.

- All data has already been collected
- Data analysis will begin in March 2016
- Review and cleaning of the raw data
- Calculation of reference intervals by sex, moult stage, LFA, and time of year as required.
- Preparation and submission of final reports
- A manuscript would be prepared and submitted to a peer-reviewed journal for publication.

Summary of Findings/Project Outcome:

From the Executive Summary:

“A moult classification system to use with the hemolymph biochemistry parameters was developed retrospectively. It reflects four stages of the moult cycle and is relatively simple to use under field conditions as it: 1) utilizes the easily obtained hemolymph Brix value, already widely used by the lobster industry; 2) requires only basic microscopic skills for pleopod staging; and, 3) simplifies the scoring of the carapace as either ‘hard’ or ‘not hard’.

The RIs calculated in this project should, ideally, be refined by targeted sampling of more lobsters in each Brix moult category. A goal of 30 – 40 lobsters per category per month, each sex, for each LFA under study is ambitious but would provide a perspective on seasonal changes not available in the current data set. It will be essential to ensure that sampling location is consistent i.e., with respect to inshore or offshore, to optimize the return on the effort invested in collecting the samples.

The reference intervals presented in this report can be used as an indication of the range of expected values for hemolymph biochemistry parameters in apparently healthy lobsters from LFAs 25, 26a, 33 and 34. They represent an additional tool to be used in future studies of lobster health.”

Total Project Cost: \$47,823

Funding provided by PEIASC: \$29,385 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

152. Installation of a Second Highway Sign for PEI Shellfish Biosecurity and AIS Awareness

Proponent: PEI Aquaculture Alliance

Project Number: 15-HAR-152

Project Status (Active or Complete): Complete

Project Start/Completion Date: January 2016 – September 2016

Project Objective:

The objective of this project is to install a second highway sign, similar to the one installed before the Confederation Bridge, to educate members of the public and shellfish shippers about the necessity for all Molluscan shellfish transfers to have federal approval.

Summary of Findings/Project Outcome:

Working with NS Transportation and Infrastructure Renewal suitable location was determined for the sign; Highway 106 northbound, at Caribou, Nova Scotia. The sign was installed May 2016. The sign text reads “Molluscan Shellfish Transferred into P.E.I. waters require federal authorisation.”

Total Project Cost: \$10,000

Funding provided by PEIASC: \$5,000 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

153. Broodstock Enhancement of Prospective Natural Oyster Seed Collection Areas

Proponent: PEI Aquaculture Alliance
Project Number: 15-HAR-153
Project Status (Active or Complete):
Project Start/Completion Date:

Project Objective:

The objective of this project is to diversify oyster seed collection into new under-utilised areas by enhancing them with oyster broodstock.

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$7,020 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

154. Quality Control & Industry Liaison

Proponent: PEI Fishermen's Association

Project Number: 16-HAR-154

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2016 -

Project Objective:

The primary functions of the Quality and Industry Program Planner are as follows:

- 1) Maintenance of Marine Stewardship Council Certification (MSC) for the PEI MSC Stakeholder Group on an annual basis. This includes a primary focus on audit preparation and the meeting the criteria of harvester related assessment conditions so that MSC certification is maintained for the Prince Edward Island lobster fishery.
- 2) The co-ordination and delivery of lobster quality handling training courses for industry personnel.
- 3) The oversight of license rationalization programs for various species
- 4) The co-ordination of administrative activities of the newly formed Lobster Fishers of Prince Edward Island Marketing Board

Summary of Findings/Project Outcome:

In the past year the Quality and Industry Planner has been instrumental in advancing the following files:

The Year 2 MSC Certification Audit for Lobster has been conducted and successfully completed with positive scores. In addition several categories are ahead of schedule in preparation for meeting conditions for the Year 3 audit.

Lobster Quality and Handling Courses have again been conducted at various locations across PEI. Future courses will be planned earlier in the year before the 2018 Spring lobster season in an effort to continue to reach additional members and crew who have not previously taken the course.

2017 has seen a number of groundfish licenses retired in an effort to rationalize the fleet. Several rounds of rationalization were coordinated during the year and buy-outs concluded.

A number of marketing activities previously coordinated by the PEIFA were taken over by the Lobster Fishers of Prince Edward Island Marketing Board and coordinated by this position.

Several new initiatives have been supported including a new lobster festival in Souris, PE that coincides with the Spring lobster season. Although a joint marketing promotion between the buyer and harvesting sector has not taken place to date, the option remains for a joint promotion of Prince Edward Island lobster.

Total Project Cost: \$56,000

Funding provided by PEIASC: \$25,960 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

155. Program Support (Core) PEI Shellfish Association

Proponent: PEI Shellfish Association
Project Number: 16-HAR-155
Project Status (Active or Complete): Active
Project Start/Completion Date: May 2016 -

Project Objective:

PEIASC funding for the program support position will allow the PEI Shellfish Association to continue to assist us in our efforts to provide training for Harvesters. The program support position assists with ongoing professional development within the Association and our industry. The PEISA will continue to support and provide services to our harvesters, using the resources outlined in the program support job description. This position is ongoing and continues to be an asset for the PEI Shellfish Association.

Summary of Findings/Project Outcome:

Total Project Cost: \$30,000

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

156. Core Funding Support for the R & D Coordinator Position

Proponent: PEI Aquaculture Alliance
Project Number: 16-HAR-156
Project Status (Active or Complete): Complete
Project Start/Completion Date: April 2016 - 2017

Project Objective:

The objectives of this project are to support the activities of the Research and Development Coordinator (RDC) whose primary focus is on the coordination of research, development and technology transfer / education priorities for the PEI Aquaculture Alliance (PEIAA) and its membership in the PEI aquaculture industry. These priorities are clearly stated within the PEIAA Strategic Plan authorized by the Association Board of Directors.

Summary of Findings/Project Outcome:

The Research and Development Coordinator (RDC) acts as a technical resource within PEI Aquaculture Alliance, available to all association members. The Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) enables the industry associations to work together to develop and deliver projects of mutual interest that lead to significant improvements for the industry.

In 2016-17 the PEIAA RDC has been involved in preparing project applications and managing multiple projects to varying degrees. Also representing the PEIAA on various technical committees and working groups and assisted multiple growers with projects, funding enquiries and program applications and claims.

Total Project Cost: \$68,700

Funding provided by PEIASC: \$15,000 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

157. Develop Diagnostic Markers to Assess Mussel Population Health in Response to Environmental Stress

Proponent: PEI Aquaculture Alliance

Project Number: 16-HAR-157

Project Status (Active or Complete): Complete

Project Start/Completion Date: May 2016 -

Project Objective:

The objective of this three year project is to use modern genomic techniques to better enable mussel farmers to identify “stressors” impacting their crop’s health, by identifying genetic markers for various stress response in mussels which may result in poor performance. These markers can then be used to:

1. investigate the causes of stress within underperforming mussel populations
2. develop mitigating strategies to minimize the impacts of the underlying environmental/mechanical stressors on the long term viability of the mussel aquaculture industry in PEI.

Summary of Findings/Project Outcome:

Total Project Cost: \$382,778

Funding provided by PEIASC: \$7,000 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

158. Increasing the Efficiency of High Pressure Sprayer Tunicate Treatment Systems

Proponent: PEI Aquaculture Alliance
Project Number: 16-HAR-158
Project Status (Active or Complete): Complete
Project Start/Completion Date: May 2016 - 2017

Project Objective:

The objective of project is to increase the efficiency of current, high pressure water spray tunicate treatment systems through the discovery of more effective system components.

Summary of Findings/Project Outcome:

Twenty-nine nozzles (including the Sudden Impact Turbo nozzle currently used by many mussel growers) were tested to determine which nozzle was the most efficient for the necessary treatment. Lab trials using Styrofoam sheets as a spray testing surface examined spray pattern, spray coverage and penetration for each nozzle. Based on the results, the durability of the nozzle materials and the cost of each nozzle, two nozzles were selected for full scale field trials, alongside the Sudden Impact Turbo nozzle. Field trials analyzed the mussel abundance, mussel length, mussel weight, and tunicate weight of samples taken from separate treatment lines and the control group one week after treatment. Results showed that the much more expensive Sudden Impact Turbo nozzle performed noticeably better than the IMEG fan nozzle and slightly better than the MEG-SSTC nozzle in terms of mussel weight and tunicate weight. However, testing results were inconclusive in determining which nozzle is the most efficient and further testing may be required to determine if these results are repeatable.

Total Project Cost: \$22,000

Funding provided by PEIASC: \$11,000 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

159. 2016 Herring Fishing Area 16 C & E and 16 G Acoustic Sounding & Variable Mesh Gillnet Project

Proponent: PEI Fishermen's Association
Project Number: 16-HAR-159
Project Status (Active or Complete): Complete
Project Start/Completion Date: September 2016 - 2017

Project Objective:

The project enabled qualified Captains to conduct herring fleet spawning bed acoustics and variable mesh gillnet sampling in conjunction with Department of Fisheries and Oceans Science Branch during the 2016 fall inshore commercial herring fishery in HFA 16 C&E (Tignish) and 16G (Fishermen's Bank & North Lake).

Summary of Findings/Project Outcome:

Selected fish harvesters collected important herring information using acoustic sounding equipment as well as variable mesh gillnets in both herring fishing areas HFA 16 C&E (Tignish) and 16G (Fishermen's Bank & North Lake). Technicians analyzed the information gathered for age-class information as well as spawning bed locations and densities. Participants in the project also recorded detailed observations including male/female ratios, spawning stages, school details, weather conditions, etc. The methodology was altered by DFO in 2015 and improved in 2016 to ensure adequate standardization of methods across the Region and better portray a random sampling of fish.

The 2016 Herring Project contributes to a consistent time series of data collection stretching back to the year 2000. Industry continues to play an important role in fisheries science and have been active participants in DFO science reviews. The latest 4T Herring Stock Assessment was reviewed on April 4th, 2016 in Moncton, NB and produced the following publication including data up to 2015: <http://waves-vagues.dfo-mpo.gc.ca/Library/365970.pdf> Fisheries science and consultation with stakeholders in the herring fishery play a vital role in the decision-making process for resource management including establishing the total allowable catch (TAC) as well as other important management decisions and conservation measures. All information gathered on herring is assessed and discussed in detail during the fishery reviews which occur every two years. The next review is scheduled for March, 2018 and will include the 2016 and 2017 4T herring information.

Total Project Cost: \$

Funding provided by PEIASC: \$2,731 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

160. Request Funding to Attend 2016 ICCAT

Proponent: PEI Fishermen's Association

Project Number: 16-HAR-160

Project Status (Active or Complete): Complete

Project Start/Completion Date: September 2016 – December 2016

Project Objective:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 14th – 21st, 2016, the Commission held the 20th Special Meeting of Tunas in Vilamoura (Portugal). Ken Drake, Chair of the Tuna Advisory Committee for the PEI Fishermen's Association, attended and participated in this meeting through the Canadian Delegation. Following the meetings Ken Drake submitted a summary of the proceedings with supporting documents.

Summary of Findings/Project Outcome:

This was the 20th Special Meeting of ICCAT where international tuna management and research were discussed and scrutinized by close to 50 countries. For more information on the ICCAT meeting and the recommendations moving forward click on the following link: https://www.iccat.int/Documents/Recs/8328-16_ENG.pdf or contact the PEIFA office at (902) 566-4050.

Total Project Cost: \$

Funding provided by PEIASC: \$3,598 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

161. Develop Diagnostic Markers – Year 2

Proponent: PEI Aquaculture Alliance

Project Number: 16-HAR-161

Project Status (Active or Complete): Complete

Project Start/Completion Date: December 2016 - 2017

Project Objective:

The objective of this three year project is to use modern genomic techniques to better enable mussel farmers to identify “stressors” impacting their crop’s health, by identifying genetic markers for various stress response in mussels which may result in poor performance. These markers can then be used to:

1. investigate the causes of stress within underperforming mussel populations
2. develop mitigating strategies to minimize the impacts of the underlying environmental/mechanical stressors on the long term viability of the mussel aquaculture industry in PEI.

The specific deliverables for year 2 are the extraction and sequencing of RNA from sample tissues, followed by transcriptomic analysis and identification of genes of interest and the development of primers for these gene expressions.

Summary of Findings/Project Outcome:

Project activities for year two included; differential gene expression analysis and gene annotation completed for thermal stress, low pH, and tunicate-fouling/treatment samples. RNA extraction from hypoxia, salinity and food availability stress samples. Field sampling kit was developed and deployed to collect mussel samples during known stress events.

Total Project Cost: \$

Funding provided by PEIASC: \$7,000 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

162. 2017 International Molluscan Safety Conference

Proponent: PEI Aquaculture Alliance
Project Number: 16-HAR-162
Project Status (Active or Complete): Complete
Project Start/Completion Date: December 2016 - 2017

Project Objective:

The PEI Aquaculture Alliance will send two representatives to attend the International Molluscan Shellfish Safety Conference (ICMSS), May 14-18, 2017 in Galway, Ireland. The ICMSS, held every two years, covers unusual, developing and new shellfish risk factors and offers new information and solutions for regulatory, scientific, and industrial representatives of the shellfish community. www.icmss2017.com. The trip will also include farm visits and meetings with industry representatives.

Summary of Findings/Project Outcome:

The PEI Aquaculture Alliance sent two representatives to attend the International Molluscan Shellfish Safety Conference in May 2017 in Galway, Ireland. This conference is held every two years and covers various topics on unusual, developing and new shellfish risk factors and offers new information and solutions for regulatory, scientific, and industrial representatives of the shellfish community.

Total Project Cost: \$5,200

Funding provided by PEIASC: \$5,200 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance
Tel:902-368-2757

163. Northumberland Strait Temperature, Salinity and Dissolved Oxygen Monitoring Project

Proponent: PEI Fishermen's Association

Project Number: 16-HAR-163

Project Status (Active or Complete): Complete

Project Start/Completion Date: 2016 - 2017

Project Objective:

Canada's State of the Oceans Report, 2012, shows there have been changes in bottom water pH in the Southern Gulf of St. Lawrence (sGSL), increases in surface water temperature in the sGSL between 1982 and 2010. These changes can affect habitat, dispersal and recruitment of different inhabitants in the area, shifting the make up of the entire community.

Shifting community structure has the potential to change fishing pressure and possibly catch rates. Having this information available within fishing grounds would be helpful in understanding which changing water chemistry parameters are causing the shift in community composition. This has potential to be used as an early warning system on other fishing grounds.

Summary of Findings/Project Outcome:

After phase 1 was complete, timing with funding approval, receiving the probes and getting them out into the water that same year just was not feasible without losing a few months of data. WE would be looking at losing at least 3 months out of 6 possible months. This works out to half the data and was not acceptable considering our goal of the project. So it was decided that the probes would go out in 2018 to ensure we get a full complement of data as planned.

Total Project Cost: \$

Funding provided by PEIASC: \$26,252.45

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050

164. Shellfish Harvest Area Water Quality Monitoring and Data Analysis

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-164

Project Status (Active or Complete): Complete

Project Start/Completion Date: January 2017 – December 2017

Project Objective:

The objectives of this project are to continue the water quality data collection and analysis of major shellfish aquaculture areas and, through the purchase of four further instruments, expand the currently available water quality monitoring capabilities. Finally to acquire software to enable better data analysis and quicker access to water quality data for industry and other interested stakeholders.

Summary of Findings/Project Outcome:

Four new water quality monitoring (WQM) systems were purchased under the project. In 2017 these were used to conduct a more in depth study of two growing areas, and will expand the existing WQM coverage in the future.

Total Project Cost: \$

Funding provided by PEIASC: \$133,500 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

165. Application for Continued Industry Training

Proponent: PEI Shellfish Association
Project Number: 17-HAR-165
Project Status (Active or Complete): Active
Project Start/Completion Date: January 2017 -

Project Objective:

Provide relevant training pieces to course participants that meet the Transport Canada requirements for safe harvesting practices in the shellfish industry. Increase the knowledge of participants in relation to the value added to their industry by adhering to safe harvesting practices.

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$10,287.10 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

166. Core Funding Support R&D Position

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-166

Project Status (Active or Complete): Complete

Project Start/Completion Date: March 2017 -

Project Objective:

The objectives of this project are to support the activities of the Research and Development Coordinator (RDC) whose primary focus is on the research, development and education priorities for the PEI Aquaculture Alliance (PEIAA) and its membership in the PEI aquaculture industry. The RDC's activities are focused on the major industry priorities and specific challenges identified by industry members.

Summary of Findings/Project Outcome:

The Research and Development Coordinator (RDC) acts as a technical resource within PEI Aquaculture Alliance, available to all association members. The Atlantic Canada Aquaculture Industry Research and Development Network (ACAIRDN) enables the industry associations to work together to develop and deliver projects of mutual interest.

In 2017 the PEIAA RDC has been involved in preparing project applications and managing multiple projects to varying degrees. Also representing the PEIAA on various technical committees and working groups and assisted multiple growers with projects, funding enquiries and program applications and claims.

Total Project Cost: \$54,563

Funding provided by PEIASC: \$22,500 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

167. Program Support Position

Proponent: PEI Shellfish Association

Project Number: 17-HAR-167

Project Status (Active or Complete):

Project Start/Completion Date: March 2017 -

Project Objective:

Summary of Findings/Project Outcome:

Total Project Cost: \$

Funding provided by PEIASC: \$14,322 over one year

Project Contact:

Brenda Campbell, President

902-831-3374

168. Training and Professional Development Program for the PEI Aquaculture Industry

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-168

Project Status (Active or Complete): Complete

Project Start/Completion Date: March 2017 – July 2017

Project Objective:

The objective of this project is to support the PEI aquaculture industry in safety related training (e.g. Occupational Health and Safety, the new WHMIS 2015, First Aid, Marine Emergency Duties) and professional development (e.g. Health and Husbandry of Aquatic Laboratory Animals, Recirculation, and administrative courses). Costs for the courses would be cost shared with the industry on a 50/50 basis, excluding travel expenses and taxes. PEIAA members identify specific courses or particular training needs to the Program Administrator.

Summary of Findings/Project Outcome:

Due to changes in regulations with Transport Canada which came into effect on July 14, 2017, more growers than ever were required to obtain certification in First Aid and WHMIS. Timing for the partially funded courses was excellent and very appreciated by all members. Courses that were undertaken during this project included First Aid & CPR, Forklift Training, WHMIS 2017, GMP, Excel, MED3, and Skid Steer Training.

Total Project Cost: \$13,000

Funding provided by PEIASC: \$6,500 over one year

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

169. Additional 2017 Industry Training

Proponent: PEI Shellfish Association

Project Number: 17-HAR-169

Project Status (Active or Complete): Active

Project Start/Completion Date: March 2017 -

Project Objective:

Provide relevant training pieces to course participants that meet the Transport Canada requirements for safe harvesting practices in the shellfish industry. Increase the knowledge of participants in relation to the value added to their industry by adhering to safe harvesting practices.

Summary of Findings/Project Outcome:

Total Project Cost: \$15,228

Funding provided by PEIASC: \$7,614 over one year

Project Contact:

Brenda Campbell, President
902-831-3374

170. Workshop: Alternative and Emerging Species for Potential Aquaculture Development

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-170

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2017 – December 2017

Project Objective:

The PEIAA will develop and conduct a two-day workshop examining emerging and alternate species with potential to be cultured in PEI waters.

Summary of Findings/Project Outcome:

The workshop explored the opportunities that emerging and alternative species and processes may present to aquaculturists, indicated possible paths forward for new developments and identified challenges that have been or may be faced with their application. Speakers included aquaculturists, product developers, researchers, service providers and potential project funders. Attendees were encouraged to participate and share ideas and experiences. Speakers and participants were actively involved in the question and answer periods as well as the discussion sessions.

Total Project Cost: \$5,520

Funding provided by PEIASC: \$4,110

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

171. Comprehensive Training and Professional Development Program

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-171

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2017 – December 2017

Project Objective:

The objective of this project is to provide training and professional development courses in safety related training (e.g. Occupational Health and Safety, the new WHMIS 2, First Aid, Pleasure Craft Operators Certification) and professional development (e.g. Excel, Budgeting, and other administrative courses) for aquaculture industry members.

Summary of Findings/Project Outcome:

The objective of this project was to provide additional training and professional development courses in safety related training and professional development for aquaculture industry members. Courses included first aid, excel, forklift training, food safe, animal care, and fish feed and nutrition. The industry values these training opportunities.

Total Project Cost: \$7,199

Funding provided by PEIASC: \$7,199

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

172. Update and Revise the PEI Shellfish Aquaculture Environmental Codes of Practice (SAECOP)

Proponent: PEI Aquaculture Alliance

Project Number: 17-HAR-172

Project Status (Active or Complete): Complete

Project Start/Completion Date: July 2017

Project Objective:

The objectives for this project are to review the current edition of SAECOP to identify gaps and updates needed; prepare such revisions and updates as required, and print and distribute the revised SAECOP document to all signatories.

Summary of Findings/Project Outcome:

A complete review of the SAECOP document was conducted by Melissa Rommens (Sustain Aqua). Partner stakeholders and industry representatives were requested to review the 2010 version to a: verify the accuracy of the content pertaining to their organisation, or area of expertise, and b: identify any new or missing material for inclusion. Meetings were held to discuss the issue of verification and audit, as well as the potential for the finalised codes to be published electronically and be openly available for download in the future. Section 5, relating to Finfish Aquaculture, was completed, in consultation with Island finfish growers. A draft of the revised codes was made available for download (and sent via hardcopy) to all signatories for their review and input. Two open house meetings were held to allow all industry members to have an opportunity to make comments or suggestions. The final version was printed and distributed in hardcopy to all signatories.

Total Project Cost: \$15,200

Funding provided by PEIASC: \$7,600

Project Contact:

Matt Sullivan, Executive Director PEI Aquaculture Alliance

Tel:902-368-2757

173. Request Funding to Attend 2017 ICCAT Conference

Proponent: PEI Fishermen's Association
Project Number: 17-HAR-173
Project Status (Active or Complete): Complete
Project Start/Completion Date: November 2017

Project Objective:

The International Commission on the Conservation of Atlantic Tunas (ICCAT) is the international body that determines the distribution of national Atlantic Bluefin tuna quotas to participating countries. From November 14th – 22nd, 2017 the Commission will be holding its deliberative meetings in Marrakech, Morocco. More information on the 25th Regular meeting of the Commission can be found at: <https://www.iccat.int/en/> including a tentative agenda and meeting updates. Mr. Doug Fraser, co-chair of the Tuna Advisory Committee for the PEI Fishermen's Association, will attend the ICCAT conference as an observer under the criteria of the Commission adopted in 2005. At the same time, he will participate in the deliberation, supply pertinent advice and analysis to Canadian spokespersons on our tuna fishery as well as play an important lobbying role with international delegates. Information gathered from the meeting will be shared with fellow harvesters through the PEIFA, as well as with the PEI Atlantic Shrimp Corporation and the PEI Department of Fisheries and Agriculture.

Summary of Findings/Project Outcome:

From November 14th – 22nd 2017, the Commission held the 25th Regular Meeting of Tunas in Marrakech, Morocco. Doug Fraser, co-chair of the Tuna Advisory Committee for the PEI Fishermen's Association, attended and participated in this meeting through the Canadian Delegation. Following the meetings Doug Fraser submitted a summary of the proceedings with supporting documents.

This was the 25th Regular Meeting of ICCAT where international tuna management and research were discussed and scrutinized by close to 50 countries. For more information on the ICCAT meeting and the recommendations moving forward click on the following link: https://www.iccat.int/Documents/Comply/RECS_2017_ENG.PDF or contact the PEIFA office at (902) 566-4050.

Total Project Cost: \$

Funding provided by PEIASC: \$3,598 over one year

Project Contact:

Ian MacPherson, Executive Director PEIFA
Tel: 902-566-4050