# **Bonne Bay Marine Station**

## **Activity Report**

**APRIL-NOVEMBER 2013** 



www.bonnebay.mun.ca

## 2013 Snapshot

**Teaching** | 100+ undergraduates experienced hands on learning in field courses offered by MUN's Biology Department and Nipissing University

**Research** | Marine-focused research is growing in the Bonne Bay region while the Station explores new terrestrial partnerships with Gros Morne National Park.

**Public Engagement** | BBMS was chosen as a success story to be featured on Memorial's new Office of Public Engagement and continues to foster relationships within Memorial University and beyond.

**Leadership** | Bonne Bay Marine Station welcomed new director Dr. Robert Scott, while former director Dr. Robert Hooper continues his Bonne Bay research

WE STRIVE TO BE: MULTIDISCIPLINARY, COMMUNITY-ENGAGED, RESEARCH BUILDING, EXPERIENTIAL, AND OUTREACH LEADERS AT THE BONNE BAY MARINE STATION

## **Undergraduate Teaching**

Bonne Bay Marine Station housed over 100 undergraduate and graduate students for biology field courses between April and October 2013. The majority were full time Memorial Biology, Education and Environmental undergraduate students from the St. John's and Corner Brook Campuses. The course offerings included:

- B3709-Marine Principles and Techniques
- B3714-Estuarine Fish Ecology
- B4014-Boreal and Arctic Seaweeds
- B4710-Experimental Marine Ecology of NL Waters
- B4810-Research Field Course in Marine Biology
- B4912-Marine Mammals
- B7535-Research Methods in Marine Science Techniques

Courses included trips to Southern Labrador, St. Anthony and surrounding Bonne Bay region.



GREG FUREY (UNDERGRADUATE STUDENT) AND VICTORIA NEVILLE (PHD CANDIDATE) CONDUCTING SNOW CRAB RESEARCH AT BONNE BAY MARINE STATION.

### **Nipissing University**

Dr. Peter Nosko had two students conducting field work in the Bonne Bay region and led a highly successful Biology field school that brought 16 students to Newfoundland for the first time. This course will continue in 2014 and happens in the first week of September. Dr. Nosko collaborates closely with researchers in Gros Morne National Park. Enjoy the highlights of the Nipissing Field Camp 2013 in a video posted here: http://www.youtube.com/watch?v=BRXv3POYMhI

#### Research

Research conducted at the station diversified in 2013 with the addition of Dr. Eric Shultz (UConn) and a team of students from Clark University's Foster & Baker Lab, whose focus is the postglacial adaptive radiation of the threespine stickleback. You can read more about their Newfoundland adventures on their blog: <a href="https://wordpress.clarku.edu/foster-baker-lab/blogs/stickleback/2013/we-seine-in-the-rain/">https://wordpress.clarku.edu/foster-baker-lab/blogs/stickleback/2013/we-seine-in-the-rain/</a>.

Memorial University researchers who continued and expanded their research at the Bonne Bay Marine Station include:

- Dr. Robert Hooper- Investigating interactions between snow crab populations and potential management strategies. Determining the effects of the recent invasive green crab on the marine ecology of Bonne Bay.
- Dr. Suzanne Dufour-Chemoautotrophic symbiosis in thyasirid bivalves
- Dr. Duncan McIlroy- Burrows in low oxygen sediments and sedimentary rocks of Gros Morne
- Dr. Robert Scott- Brook trout and stickleback Memorial University MSc, PhD, Postdoctoral research projects based on field work conducted at BBMS include:
  - Samantha Green MSc
  - Jason Laurich MSc
  - Heather Zanzerl MSc
  - Bonita McCuaig PhD
  - Flora Salvo Postdoctoral fellow

The Bonne Bay marine station is in a phase of growth and diversification. We are happy to welcome researchers from all disciplines of the Sciences and Arts to use the station as a base for their field studies.

### **Public Engagement**

### **Visitor Experience**

The comment cards from the public aquarium, Trip Advisor feedback, and guest book comments indicate that tourists are very pleased with their interpretive experience. We received several suggestions for the creation of more interactive displays and aquaria that truly showcase the exceptional creatures found in Bonne Bay. Our marine education interpreters undergo extensive training covering the biology, geography, geology and sociology of the region in order to provide a visitor experience that can be tailored to all. Visitor feedback continuously compliments the excellence of our station guides and their knowledge base.

The Bonne Bay Marine Station had its best year of attendance since opening in 2002 and saw over 11,000 visitors from May-September in the 2013 season. Partnerships with local business continue to thrive with a record high for Bon Tour's "Family Discovery Tours" that are conducted with our interpreters and includes the ecology of Bonne Bay. Gros



GRADE 8 STUDENTS PARTICIPATING IN WATER QUALITY TESTS DURING TRADING BOOKS FOR BOATS IN BONNE BAY

Morne Adventures have a program "Nature Paddle & Aquarium Tour" that continues to be highly sought after and involves our interpreters providing an opportunity to discover the unique marine ecology and geology of Bonne Bay both on the water and in the station.

The Bonne Bay Marine Station continued its delivery of the Tide Pool Exploration program at Lobster Cove Head in partnership with Parks Canada. Explorations were led in July/August, saw over 160 people and continued to work as a positive marketing opportunity to draw Gros Morne National Park visitors to the Bonne Bay Marine Station and Norris Point.

### **Educational Programs**

Bonne Bay Marine Station attracted a total of 15 school groups, encompassing primary/secondary/post-secondary educational institutes, during our regular programming season.

Our "Trading Books for Boats" school program in Bonne Bay received an overhaul to make learning stations more interactive, and to incorporate research material gathered by the Community University Research for Recovery Alliance (CURRA). Student and teacher feedback indicated that the revisions were successful and contributed to an enhanced learning experience. The program will continue to be modified in time for its annual delivery in September in 2014.

Bonne Bay Marine Station and Memorial University signed an MOU with Ocean Learning Partnership in October 2013 that formalized a mutually beneficial relationship aimed at biology and oceanography focused outreach. A pilot project in



CULMINATING EVENT OF VIRGINIA MITFORD'S TIME AS AN ARTIST AT BONNE BAY MARINE STATION

September 2013 allowed high school students in the region to explore marine technology and fly a submersible remotely operated vehicle. The program will continue to develop and new offerings available in 2014.

## BRINGING A BIG WORLD TO A SMALL COMMUNITY; OFFICE OF PUBLIC ENGAGEMENT

Bonne Bay Marine Station is featured on Memorial's Office of Public Engagement as a success story.

### http://www.mun.ca/publicengagement/stories/.

The station remained engaged throughout 2013 with the following groups, programs, events and community partners:

### **Cultural Connections**

- Trails, Tales & Tunes Festival
- Celebrate the Sea Day
- Women's Film Festival-Films On the Go
- Classic Film Club

- Routes to Learning Canada
- Creative Gros Morne
- People of the Sea Film Festival

### Partners in Engagement:

- Harris Center
- Community-University Expo
- Grenfell Artist in Residence Program
- Memorial University Career Experience Program
- · Women in Science and Engineering
- I love MUNdays/I love Grenfell
- Coleman's Grocery Store
- Parks Canada-Gros Morne National Park

### **Community Volunteers**

- Gros Morne Academy high school students
- Norris Point community members
- Tom Zamzow-Grenfell Campus exchange student-Netherlands

### **Visiting Groups**

- Ocean Quest Divers
- Avalon Nordic Ski Club
- College of the North Atlantic (Film School)
- PEAC School for Elite Athletes
- MUN's Department of Earth Sciences Ichnology Group
- BBMS Social Science Field School Retreat
- Grenfell Campus MA of Environmental Policy

### What does the future hold?

As the BBMS continues grow, we are looking to develop the public aquarium, and both the breadth and quality of our outreach activities. The Social Science Field School Retreat sparked interest, collaboration and generated the momentum required to meet our goal of creating a full complement of undergraduate fall field school courses by 2015.

## Contact us

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