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The UINR Marten is published quarterly by the Unama'ki Institute of Natural Resources in Eskasoni, NS

Subscriptions are free and copies may be downloaded from www.uinr.ca

Comments and questions are welcome. Email us at info@uinr.ca

Mission possible!

What a difference a few weeks can make! Until this year, the annual St Anne's Mission resulted in mountains of garbage and complaints about sewage being dumped in the Lakes.

This year, things were different. Thanks to the far-sighted work of Pitu'paq, the unique group of First Nations, municipal governments and their federal and provincial partners, things were notably better. With a kick-start investment of \$15,000 from Pitu'paq, a dedicated coordinator, Barry Bernard, Tahira Paul and her dedicated team of Nova Scotia Youth Conservation Corps students, Membertou student coordinator, Clark Paul, the leadership of UINR's Laurie Sutor, major changes were made to address the many garbage and sewage-related issues that have plagued the Mission for years.

Also contributing to this year's success were John Johnson, who provided sewage services and assisted with garbage patrols, ACAP Cape Breton, Michael Denny, who built the portable pump-out unit, Charles Doucette, who operated the barge, and Albert Marshall who provided ongoing support. The Bras d'Or Stewardship Society also contributed financially to the project.

With just a few weeks of planning and the full support of the Chiefs and Grand Council, there were some major accomplishments:

- Eight port-a-potties were installed on the Island and maintained daily
- A portable pump-out unit was built and operated throughout the Mission
- Fourteen port-a-potties were maintained by Bioliquid Waste of Antigonish, and there was no vandalism

- Waste bins were built on the mainland and Island and were emptied and patrolled regularly
- Tons of garbage were removed on daily runs from the Island (Sunshine Disposal provided dumpsters)
- Recycling was a challenge, but some people did recycle and with education, a full recycling program will be in place next year
- Fees were collected from campers and permits were issued
- New sewage holding tanks were installed
- Brochures, signage, and kits with recycle, compost, and garbage bags were distributed
- While the recycling program had its share of difficulties and some garbage was left behind on the Island, the first-year program was deemed to be a huge success!

Based on this year's success, Pitu'paq is developing a long-term plan for the Mission.

Pictured below are NSYCC participants Tahira Paul, Tracie Johnson, and Brandon Tracy.



The beatles reunion!



From the point of view of Spruce Beetles, these are good times! It's a time for growth, expansion, and the fulfilment of their purpose in the great cycle of life. The white spruce have matured, the winters have been mild, and it is time to feast, multiply, and thin the forest to make room for hardwood. However, from the human point-of-view, things are a bit different...

The mature forest of white spruce that surrounds my home and spreads through the hills of Castle Bay have a visitor. And it's not a welcome one.

Fifty years ago, there was barely a tree to be seen as the land was cleared for farmland and pasture. As farmers abandoned the land for jobs in the city, white spruce took hold and, in 50 years, the landscape was transformed to shady forests of tall, mature spruce. You can see this pattern repeated throughout Nova Scotia, resulting in many stands of even-aged, white spruce forests.

White spruce grows fast and is short lived. At 50 years, the trees are mature, rot can set in, and they are susceptible to being blown down in high winds. They are also vulnerable to disease and attacks by insects.

Enter our guest—the simply named Spruce Beetle (*Dendroctonus rufipennis* Kirby), an insect native to Nova Scotia.

Last year, I noticed that some trees in the surrounding forests were turning brown. By this summer, the number of trees turning from healthy, vibrant green to brown has tripled. It's not a gradual thing with a branch dying here and there—the whole tree dies.

Early in May, Spruce Beetles bore into the spruce's bark, right down to the outer layer of sapwood. Here they mate, lay their eggs, and the feasting begins. When the larvae hatch, they eat together for a while and then go on their own, forming tunnels that soon ring the tree, preventing nutrients from flowing, and quickly killing the tree.



The adult beetles leave the tree in the fall and seek out a place to overwinter at the bases of the trees. If it's a cold winter, keeping the beetle population low, the trees are able to resist their attack. Younger, healthy trees can produce additional sap to counter the attack, but when the trees are at the end of their life cycle, and the Spruce Beetles are plentiful—resistance is futile!

So how do you know if the Spruce Beetle has taken up residence? Watch for small holes about 1 mm in diameter that may have sap dripping out of them, or dried sap covering the holes. Watch for reddish-brown sawdust on the bark and the base of the tree. If you notice the tree turning reddish brown in late summer, it's too late.

So what can you do? Unfortunately, very little. Harvest the spruce trees before they become over mature, remove trees that have blown down, don't leave tall stumps and thick slash when harvesting. Harvest infested trees and remove them from the forest, destroy bark and slabs. Because most white spruce trees grow in same-aged stands, all of the trees may need to be cut. Harvested logs should be placed in water to kill the remaining beetles.

From the human perspective, the attack of the Spruce Beetle is a costly nuisance. But it is nature's way of preparing the forest for its next phase, and from the Spruce Beetles' point-of-view, it is time to feast, multiply, and fulfil their purpose in nature!



Allison's back

Allison MacIsaac joins UINR once again, filling the role of Research Co-ordinator while Shelley Denny is on maternity leave.

Allison is well-acquainted with life at UINR. She has worked on many UINR projects and has worked closely with Shelley on many projects at Eskasoni Fish and Wildlife.

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Lisa pjila'si



Mel moves



UINR's Administrative Assistant, Melissa Nevin has accepted a position as Mi'kmaq Consultation Researcher at Kwilumu'kw Maw-Kusuaqn.

"I am very excited about my new position! It has been a wonderful experience working at UINR because of the people I met and knowledge I gained. I really enjoyed working with the UINR Board, staff, Pitu'paq and CEPI committees. I could not have worked with a better group. I want to thank the people that have faith in my abilities and for giving me the opportunity to work at UINR and KMK."

New arrival

Congratulations to Shelley Denny and family as we welcome Isabel Aselin Denney who arrived on 16 August, weighing 8 lbs 3 oz.

Shelley will be taking some time off to care for her new daughter.



Traditionally, the fall is the beginning of the Mi'kmaq year. As the birds began their flight south, Mi'kmaq people began their migration from the lakes and ocean to their inland homes. Birds, eels, salmon, moose, and beaver were plentiful and fall was the time to harvest and lay in supplies for the long winter ahead.

Now-a-days, we still have the spirit of new beginnings at this time of the year. The start of the school term, freezing blueberries, and getting our homes ready for the winter are all part of the modern cycles of our people that have replaced the old ways.

This issue's cover story brings the concept of new beginnings into focus. The Chapel Island Mission, that has taken place for hundreds of years, has a new start with a comprehensive recycling and sewage program being put in place for the first time. Congratulations to Pitu'paq for getting the ball rolling.

At UINR, we are embarking on some new projects that will have some impact on the future of the Bras d'Or Lakes. See inside for stories on lobster management, a new moose workshop, our detailed look at water quality in the Lakes, and watch for more projects in our next issue.

The state of the Bras d'Or Lakes is something that interests us all. After years of research, one piece of the puzzle is in place with the Marine Environmental Water Quality report that we recently published. You can see our conclusions and recommendations summarized in this issue.

Our Administrative Assistant, Melissa Nevin has some new beginnings of her own. She is leaving her position at UINR to join KMK. We miss her already!

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The Oyster Garden 9

A Story by Charlie Dennis



Tribute to Frank Francis Frankie—Friend & Cousin

I met Frank when my grandfather and I were visiting at his family's home. Originally, we lived near the new elementary school, up on the hill where the Eskasoni Supermarket is today. Every chance I got I would spend visiting my grandparents who lived by what we called 'New York Corner' — I don't know where the name came from, but everybody in Eskasoni called it that. For the young people, I'm talking about the first house on the right side heading down Beach Road.

Frankie's parents lived about a mile from New York Corner, but it seemed a lot farther because I was young and my grandfather walked so fast (the late Stephen Francis). This particular day, though I didn't realize until we got there, we were invited for dinner and were late. As I was a stranger to this part of Eskasoni, Frankie and the family was introduced to me and, after being served a dinner of baked eels with all the fixings, we listened to stories by my grandfather and Uncle Noel, which kept every body good and sleepy, especially after that large meal.

After this visit, I didn't see Frankie until my grandparents and Dad went visiting in Malagawatch. I believe one my stories mentioned when I got to meet Gabriel Sylliboy—it was the same time that I saw Frankie while he was fishing oysters in River Denys. He was helping his father and brother, Edmond, fish and sell oysters to different barges. They lived in Malagawatch in a small tarpaper shack with just about enough room for three people.

After giving me a tour and introducing me to the oyster fishermen, we went to their shack for a cup of tea. The first thing I noticed was this large stump in the middle of the cabin which was used as a table. It's not so bad once you throw a tablecloth over it—for special guests only—they chuckled. Frankie commented that sleeping was a different story. Of course, I had to ask why this was so, and they explained that before they went to sleep, they would shove pieces of toilet paper in their ears and noses so that bugs wouldn't crawl in. We all laughed about it and I thought they were joking. The truth came out through one of Gabriel Sylliboy's stories—I mentioned what Frankie and Edmond told me and he chuckled. I didn't believe it either said Gabriel, until I saw both boys come out of the cabin early one morning with paper in their noses and ears.

Getting back to my original story about Frankie and his many business ventures, I realized that he had his whole year well planned, and knew what he was going to do depending on the different seasons.

When I met Frankie and his family in Malagawatch, they were oystering from September 15th to November 30th, and this would be the average season for oysters, give or take a day or two. As oysters were plentiful in those days, an average of 15 boxes of oysters was always their target, and if the weather was bad, they would try to make it up when the weather was nice.

Fishing with an oyster rake, they could scoop up 15 or 20 oysters of different sizes. Undersized oysters—less than three inches—were always thrown back into the water. Not all the oysters that were fished using the rake were alive, shells would be mixed in with other things, such as mussel shells, sticks, rocks, and seaweed, etc. So you see that cleaning up was hard work.

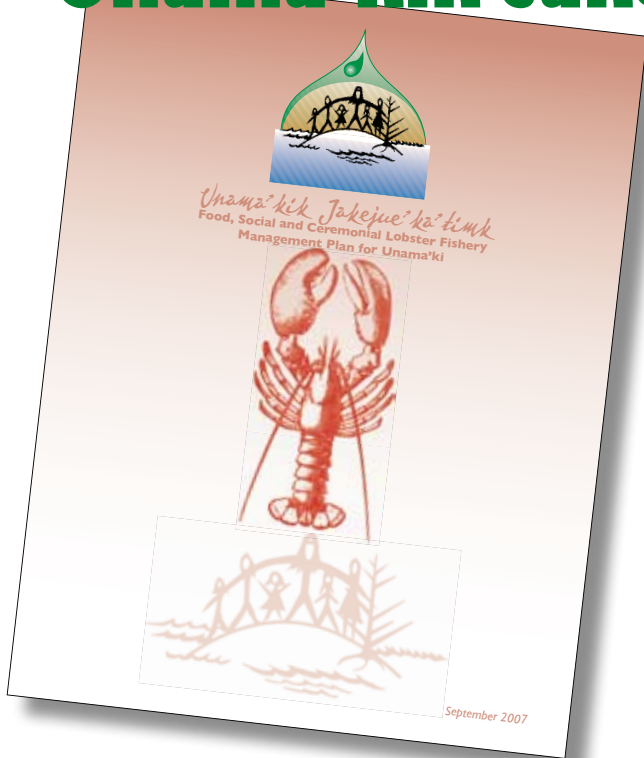
When the oysters were not as plentiful toward the end of the season, picking with smaller rods was preferred. Of course, the average number of boxes of oysters had dropped—but not too much. Actually, when talking to other fishermen, both native and non-native, Frankie Francis was the champion oyster fisherman.

When the oyster season was over, and before the ice started forming in the Lakes, he would be fishing for eels while they hibernated in the mud flats. Of course, Frankie knew where they were hiding from experience and knowledge he picked up from Elders. Fishing and selling eels was another task that Frankie would use to supplement his income (one of many). Before I forget, I should also mention that he made the best eel stew—people just loved it. Whenever someone passed away in Eskasoni, he would make sure that a large pot of eel stew was made available to everybody at the gathering after the funeral, which is called a salite. Everybody would be talking about Frankie's katuapu'l, or eel stew.

To be Continued in our Winter Issue...



Unama'kik Jakejue'ka'timk



UINR has just published *Unama'kik Jakejue'ka'timk: Food, Social, and Ceremonial Lobster Fishery Management Plan for Unama'ki*.

This plan was developed for the food, social, and ceremonial (FSC) lobster fishery through consultation with lobster fishers, elders, members of the Grand Council, and other knowledgeable community members to address concerns with current conservation provisions set out in the Aboriginal Fisheries Strategy (AFS) agreements. This plan is voluntary and will be used to complement current conservation conditions outlined in the agreements. In the absence of AFS agreements, this management plan will still apply to the Unama'ki food, social, and ceremonial lobster fishery.

The plan covers the FSC fishing season from 15 September 2007 to 14 September 2008.

The Management Plan includes comprehensive information on the history that led to the plan, biological information on jakej (lobster), an overview of the fishery, the status of the lobster stock, conservation and management issues, long-term and specific management objectives, enforcement measures, and financial responsibilities.

A Code of Practice and Handling of Lobster harvested during the food, social, and ceremonial fishery is also included. While the Code is voluntary, the Chiefs of Unama'ki encourage all FSC lobster fishers to adopt it as a commitment to Netukulimk, the safety of our people, and our responsibility to ensure the lobster gift is there for the benefit of all.

Copies of the Plan are available from all Unama'ki Band Offices, at the UINR office in Eskasoni, and online at www.uinr.ca in the Research section.

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Netukulimk is the use of the natural bounty provided by the Creator, for the self-support and well-being of the individual and community at large. Netukulimk simply means achieving adequate standards of community nutrition and economic well being without jeopardizing the integrity, diversity, or productivity of our environment.

As First Nations, we have long held to the belief that, although it has been established that we have an inherent right to access and use our resources, we also have a responsibility to use those resources in a sustainable way.

The Mi'kmaq way of resource management includes a spiritual element that ties the people to the plants, animals, and the environment as a whole. UINR's strength is in our ability to integrate scientific research capabilities with Aboriginal knowledge acquisition, utilization, and storage. Through this two-eyed seeing approach, the practice of Netukulimk can be restored.

Code of practice & handling of lobster harvested during the food, social, and ceremonial fishery

Here's a summary of the Code:

1. Minimize waste

Care will be taken to ensure that the lobster harvested will survive until prepared for consumption.

2. Minimize damage to lobster returned to the sea

Lobsters returned to the sea today will become catches in the future.

3. Minimize footprint on the environment

Lobsters live in the ocean and the Bras d'Or Lakes. Respect and care will be extended to the environment in which the lobster lives.

4. Follow safe boating practices

The ocean is powerful. Be prepared.



Unama'ki Institute of Natural Resources Moose Management Initiative

UINR's Moose Management Initiative just published a brochure outlining Good Principles and Safe Practices for Mi'kmaq hunters in the moose hunt. Copies are being distributed throughout the Highlands. They are also available at the UINR office in Eskasoni and your Band office.

GOOD PRINCIPLES & SAFE PRACTICES

Here are some of the principles and practices that are included in the brochure:

Be sure your firearm is unloaded when transporting in a vehicle or vessel.

Be able to provide proper identification when requested by a Conservation Officer.

Wear a hunter orange vest or coat and hat when hunting, or in an area where others may be hunting.

Never hunt or possess an uncased firearm or bow in wildlife habitat while impaired by drugs or alcohol.

Wear an approved safety helmet when operating, or a passenger on an off-highway vehicle.

It is illegal to discharge a firearm one-half hour after sunset and one-half hour before sunrise.

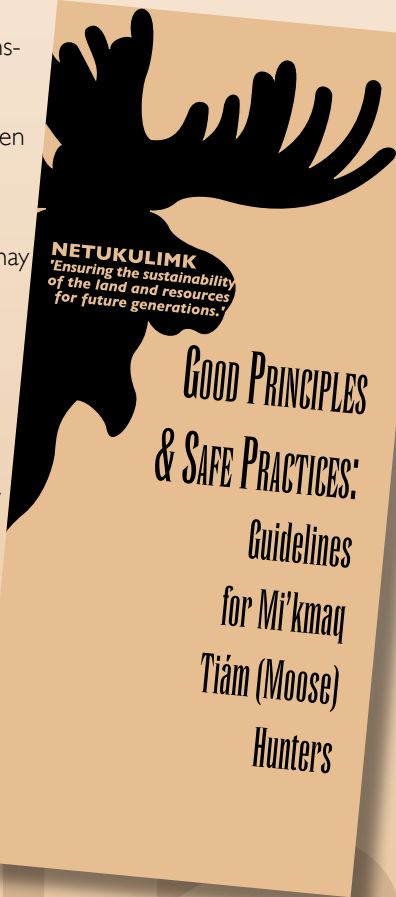
You are not permitted (without permission) to hunt with a rifle within 402 metres (1319 ft) of a public building, playground, golf course, athletic field, woods operation, or place of business [182 metres (587 ft) with a shotgun loaded with shot or a bow].

There is an 804 metre (2638 ft) no hunting and no discharge of a weapon zone around all schools.

Hunting wildlife within the boundaries of a public highway or within 30.5 metres (100 ft) of it, is a safety violation.

Failing to use proper care and attention when handling or discharging a firearm is unsafe and illegal.

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Moose hide preparation workshop: Bringing back an ancient tradition

As Mi'kmaq people become more involved in issues of moose management, benefits of harvesting moose can be looked at in creative, sustainable ways.

We now recognize the need to use all parts of the moose to maximize the benefits of our relationship with this very valuable resource. Not only do moose provide a fresh supply of meat, but historically Mi'kmaq people depended on moose for a number of survival needs. While the highly-prized moose hides were used for clothing, shelter, and drum making, some skins were used to make boats. Hooves were used as rattles, and the high density shin bones were carved and sharpened as spear tips.

To bring some of that ancient knowledge back to Mi'kmaq communities, the Moose Working Group held a Moose Hide Preparation Workshop from 2–12 October. Two elders from the Ojibway and Cree Nations provided much needed instruction on naturally tanning moose hides. Walter and Doris Bonaise showed how to smoke and sun dry moose meat and prepare pemmican. Ceremonies to honour the ancient relationship between moose and the Mi'kmaq were explored to ensure a spiritual component is part of the harvest and utilization of all parts of the moose.

Department of Indian Affairs, Kwilmu'kw Maw-Klusuaqn (Mi'kmaq Rights Initiative), and the Office of Aboriginal Affairs contributed to the project. The workshop provided training for participants from the Unama'ki communities. This is the first phase of a larger plan to increase the capacity of our communities to the proper use of all parts of a moose.

"We have observed that the majority of moose hides from native and non-native hunts are discarded and not considered a useful commodity by harvesters," UINR Moose Management Initiative Coordinator Clifford Paul notes "This workshop served as a catalyst to bring back the traditions employed by the Mi'kmaq in earlier times. UINR wants to re-learn and teach its community members how to fully use the moose in a traditional manner while strengthening our cultural skills and values."

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How the Lakes are doing

Malfunctioning private septic systems, inadequate community sewage systems, pesticides, herbicides, fertilizers, boating sewage, and dangerous chemicals all contribute to problems with water quality in the Bras d'Or Lakes. UINR, along with the Bras d'Or Lakes Collaborative Environmental Planning Initiative, have published The State of the Bras d'Or Marine Environmental Water Quality Background Report. The Report is an in-depth look at the different factors that contribute to the Lakes' water quality. The complete Background Report is available from the UINR website at www.uinr.ca

The Report reaches nine major conclusions and makes recommendations to improve some of the shortcomings in existing legislation, absences of regulations, and scientific monitoring methods. We reprint them below.

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Conclusion	Recommendation
<p>1. There are septic systems in the Bras d'Or Lakes watershed that are old, undersized, and prone to malfunction. Properly designed and maintained septic systems are an effective means of sewage treatment.</p> <p>There are regulations in place for new home construction.</p>	Support the establishment of programs to upgrade, maintain, and replace malfunctioning septic systems.
<p>2. The weak link in some community sewage systems is lift stations that carry sewage from lower elevations to the central sewer lines.</p>	Support First Nations and municipalities in obtaining the necessary infrastructure funding to properly maintain and operate their sewage management systems.
<p>3. There are still straight pipes discharging sewage or grey water into the Lakes.</p>	Support the establishment of programs to replace all straight pipes with proper septic systems.
<p>4. Pesticides, herbicides, chemical fertilizers, and manure can enter the Lakes in run-off water after heavy rainfall.</p>	Ensure environmental management plans are implemented for farms, golf courses, and other sources of contaminants. Environmentally-friendly substitutes for toxic chemicals should be used.
<p>5. The Bras d'Or Lakes have been declared a non-discharge zone for untreated boat sewage and chemicals. There are six pump-out stations available.</p>	Some parts of the Lakes are a long distance from these facilities and can't accommodate larger vessels. Support community groups to establish additional pump-out stations on the Bras d'Or Lakes
<p>6. The concentrations of organic compounds and heavy metals in sediments and the dissolved state are very low, mostly at background levels. Higher levels of zinc were found in the vicinity of Denys Basin and concentrations of lead were measured in sediments off Eskasoni.</p>	Further focused testing and monitoring should be conducted.
<p>7. Nutrients essential for phytoplankton production, which is the base for all marine life in the Lakes, are not abundant.</p>	A long-term monitoring program should be carried out to learn more about the nutrient dynamics in the Lakes.
<p>8. The Nova Scotia provincial government has legislation to protect fresh water. There is limited legislative protection for marine coastal areas.</p>	Governments should strengthen legislation for marine coastal areas.
<p>9. Studies to examine the levels of nutrients, marine environmental quality and habitats have been completed using different methods. This makes comparisons difficult.</p>	A monitoring strategy using consistent methods should be developed so that changes can be evaluated and compared.

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What's New? @ UINR


We figured it was time to update everyone on what's new & exciting at UINR!



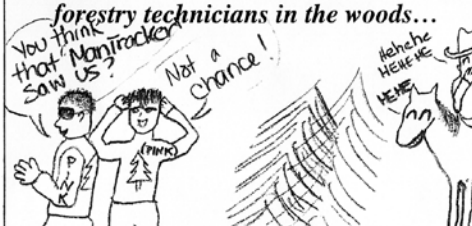
Our administrative whiz, Melissa is leaving for hopefully just a short while to pursue another endeavor and broaden her horizons!



There are a couple of ladies here that call themselves the Tea Bags for their love of teas, and bought themselves a new tea kettle...




Some of our field staff identified a need for custom jackets, and had a bit of a time trying to find a waterproof, breathable, hyper dry, reflective, stylish, blue, unisex, comfortable, no not blue - green, or maybe purple, 'can't the girls just have purple', or pink! We can all have pink or baby blue, it'll be more visible for the forestry technicians in the woods...



Several of the UINR staff is undergoing all kinds of training, but I think the person that has the heaviest course load is our NRO Coordinator...

SEPTEMBER 2007	Bair
← HOW TO BE ASSERTIVE →	
← HOW TO MAKE COFFEE →	
← EFFECTIVE MEETINGS →	← STAND UP TO BULLIES (like Melissa) →
	← FIRST AID →
← HOW TO BE LESS ASSERTIVE →	
	← OHS/WHMIS →
← COMPUTER TRAINING →	
← WHAT NOT TO WEAR →	

So remember, we're always trying bigger and better things to improve ourselves so we can do the best job possible!



Annie E. Johnson

