

## The Spirit of the Lakes Speaks launched



As the chant of the Friendship song drifted across the Bras d'Or Lakes on a rare sunny July afternoon, people shook hands in congratulations on the release of *The Spirit of the Lakes Speaks*, a document created by the Bras d'Or Lakes Collaborative Environmental Planning Initiative (CEPI).

With a vision for the protection and sustainability of the Bras d'Or Lakes and watershed, the document is a "process plan" for people and government who work and live around the Lakes.

Lisa Young, UINR Executive Director and member of CEPI Management Committee, was in attendance. "It took some time to get here but it was well worth the wait. It's been quite an experience working with the partners around the CEPI table. They are a dedicated bunch of people who are very generous with their time and knowledge. I personally feel very proud and privileged to have played a part in the development of a document that is as special and unique as the Bras d'Or Lakes."

The CEPI process plan describes a way to work together to address environmental management issues around the Bras d'Or Lakes. Inspired by the medicine wheel and two-eyed seeing, the plan proposes seven guiding principles to help decision-making and action. These principles influence how decisions are made and actions taken:

- We are part of nature, not the owners of her.
- We will assist in healing previous damages.
- We will consider the impact of our present actions on future generations.
- We will pay attention.
- We will cause no net loss of habitat.
- We will work together.
- We are accountable.

You can download *The Spirit of the Lakes Speaks* at [brasdorcepi.ca](http://brasdorcepi.ca)

Top: CEPI members: Shelley Porter, Annie Johnson, Dan Christmas, René Lavoie, Lisa Young, Anthony Morris and Charlie Dennis

Right: Presenters Mike MacKenzie, Jessie Helen MacNeil and Annie Johnson; Audience members review report; handmade gift presented to friends of CEPI



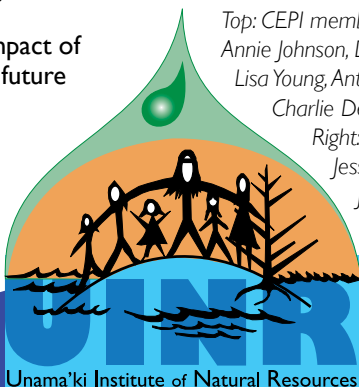
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Comments and questions are welcome. Email us at [info@uinr.ca](mailto:info@uinr.ca)

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# NEWS

WWW

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UINR has partnered with CBU's Unama'ki College to bring the Unama'KIDS puppet show about the American Marten to video. Watch for its release this fall...Guardians around Unama'ki are meeting to brainstorm on the future of the Guardian program and the role UINR will have in its coordination...The results of the smolt wheel research in Middle River are being tabulated and the wheel will be back in the river to collect samples next year...UINR staff recently toured the NewPage co-generation steam turbine project which is under construction in Port Hawkesbury...Graduate students from Dalhousie University met with UINR as part of their course on Indigenous Perspectives on Natural Resource Management...Congratulations to the Bras d'Or Lake Biosphere Reserve Association on the UNESCO designation of the Bras d'Or Lakes and its watershed as a Man and the Biosphere Reserve...Congratulations to UINR/Georgia Pacific and NewPage scholarships winner Simon Silliboy.

Here's where we keep you up-to-date on new stuff online at uinr.ca

Take a look at our new website design. Now if you access us on a mobile device, iPhone or iPad, you'll be able to see all our videos and download publications and reports easily.

UINR has a YouTube channel where you can see all of our videos. Just go to YouTube.com and search for UINRTV.

If you have not yet checked out our UINR Facebook page, be sure to the next time you are updating your status! It's a great way to keep informed about activities at UINR. If you are a Twitter user be sure to follow us for up-to-minute news and resources.

uinr.ca is the first place we post news-breaking stories and information and you can often find stories from our newsletter there before they make it to print. It's a great resource for students too, where every story is archived and easy to find.



## Attention: Mi'kmaq Harvesters

With the 2011 Mi'kmaq moose season underway, now is the time to consider the importance of hunter reporting to help strengthen Mi'kmaq moose management. Over the past few years, Mi'kmaq harvesters, community members, Elders and youth expressed a desire for more input on management of hunting, moose ecosystems, and overall management of the herd.

Harvester reporting is the next step. Mi'kmaq information on moose kills and sightings are key pieces of the management puzzle. Your input provides vital information on the health of the herd and factors that affect their ecosystems.

The 2011 Mi'kmaq Moose Report is simple to fill out and is available from UINR of KMKNO offices or downloaded at uinr.ca

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A tree planting day at Malagawatch had grade eight students from Eskasoni Junior High and community residents come together to plant seedlings on the newly restored bank at the cemetery.





Above: Welcome the new crop of Unama'KIDS for the 2011/2012!



Above: UINR's Tyson Paul, Shelley Denny and Angela Denny organize a clean up at Malagawatch.

Below: Tyson Paul, Shelley Denny and CBU students Dave Woodland and Stacy Pettipas with smolt wheel on Middle River.



UINR's

# Welcome

from **Lisa Young**  
UINR's Executive Director

Summer this year seems more like fall, with rain and colder than average temperatures. With high temperature records broken daily throughout the United States there is no doubt that climate change is having an impact. I suppose we should be thankful that we are not suffering drought and heat waves... although some days a heat wave on the Bras d'Or Lakes would be welcome!

As many of you know, UINR lost one of our most valued co-workers, Blair Bernard, after a long struggle with cancer. Throughout his journey, Blair maintained the positive attitude that he was well-known for around the office. On his time away from his job as Natural Resource Officer Coordinator, he regularly dropped by to say hello and to see how everything was going at UINR. He was dedicated to his work here and recognized the importance of establishing a NRO program in Unama'ki. No one knew this more than Blair, and his first-hand experience with hunting and fishing, and his love for the natural world, made him a natural.

In this issue, our staff share their memories and stories of Blair and Charlie Dennis devotes the return of his column, "The Oyster Garden," to his good friend.

On a happier note, we are thrilled to have Charlie Dennis back to work with us as our Senior Advisor. It felt so good to have Charlie at the release of "The Spirit of the Lakes Speaks" in July. It is a project near and dear to him and the standing ovation he received when he took the stage was a testament to the respect and admiration that everyone who has worked with him feels.

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One of the stories that sticks out in my mind happened a few years ago. Blair and the Guardians were involved in a project by EFWC and sponsored by Nova Scotia Fisheries at the request of the angling community. Rainbow trout is an introduced species that was affecting the native population of speckled trout. Anglers requested that they be allowed to keep rainbow trout they caught to reduce the threat to the speckled trout population.

For a few years, discussions took place at meetings and in the communities and finally, it was agreed that a survey should take place to collect information before this initiative could happen. Data collection would make sure it proceeded in the right direction. As you know, there was a good-sized population of speckled trout to be considered.

Since there was an active smelt fishery in the winter, it was decided that this would be a good time to record what was being caught by ice fishermen in various locations. In the past, nobody had ever studied the number of smelts being caught through the ice or the number of different species. At that time it was difficult to get information from anglers because of mistrust, people presuming someone was keeping an eye on them or what they were catching. In general, information was scarce, but it was important to know the numbers before proceeding.

Well, getting back to our story...it was decided that someone had to collect information and that Guardians in our Mi'kmaq communities would be ideal to do the job. The Guardians agreed to interview fishermen in the field. Very little training was involved and their approval was a key to success of the project.

Many stories came out during the process and choosing just one was very difficult. Blair Bernard had a great interest in fish and wildlife. One thing everybody knew about Blair was his gentle way of speaking and talking to people. He was well respected in both native and non-native communities.

One of the areas surveyed was MacAulay's Cove near Big Harbour Island (Malagawatch). If you're familiar with this area, there is a bridge and a sharp turn about three kilometres before you get to the turn-off to Mala. There is a small cove on your right before you cross the bridge. During the winter people flock to this cove because of the shelter from prevailing winds. Ice fishermen love it. It is close to the road and they can easily get to their vehicles to get warm.

If you're driving by, you can see all kinds of things fishermen use to keep comfortable. Fishermen believe in comfort and some go out of their way to build huts and different types of chairs from milk crates, buckets and boxes.

Getting back our friend Blair, he would interview anglers and record their catches. One day Blair interviewed a group of fishermen at MacAulay's Cove. The fishermen were very cooperative and even offered Blair some cooked, fried smelts. "Go inside the hut and help yourself to a feed of smelts," was the word he got. Of course, when you offer Blair seafood, be prepared for the consequences.

After a while, the fishermen decided to join Blair in the hut. They went inside and asked Blair where the five dozen smelt they prepared were. Blair commented, "You offered them and so I had a feast and that was it." All the fishermen could see was the heads and tails of the fish, like you see in a cartoon where a cat has feasted on its favourite meal. That was the big story that was talked about for quite awhile in the angling community!

The final conclusion from the surveys was to allow anglers to keep rainbow trout, but not the speckled trout. I recently spoke to Dan MacLean from Nova Scotia Fisheries in Pictou and he commended the fine work that Blair and the Guardians did, saying it was the main reason the rainbow trout fishery is in place.



# *it's all about the people* **Blair Bernard**

Never was a man so happy to skin an eel. The joy in that moment carried into every part of Blair's life. His world was outdoors. Hunting and fishing were an excuse to be in nature. It was where he felt alive. He brought that energy, that understanding with him to his work and friendships. —Weldon Bona

Blair was one of the nicest people I ever had the pleasure of knowing. He found enjoyment in simple things in life like being outdoors, hunting, fishing, eating. His idea of dressing up for work was to leave his work boots at home. He took a trip to Colorado once and fell in love with the place because of the abundance of mountains and wildlife. He said he'd love to live there someday. —Lisa Young

My favourite story about Blair would have to be the time he was teaching Shelley and I how to skin and gut eels for our research. I was so afraid to pick up or even touch the eel (it wasn't even alive, by the way) and Blair kept laughing at me. Finally he asked me, "Why are you so afraid of the eel? It's just food!" This gave me a whole new perspective on looking at eels and I won't forget this bit of advice. I am still a little bit afraid of eels, especially when they are alive, but I just have to remember, it's just food! —Angela Denny

We went moose hunting together a few times and after a long day of not seeing anything we would pull over and make hot tea and something to eat. Just that we were out there enjoying the scenery and company made the day fly by and enjoyable despite not seeing any moose. Blair was a jack-of-all-trades. He could make anything, fix anything, build anything, catch and hunt anything and would share anything or any knowledge he had to help you. He would help with anything he could to anyone that asked. —Hubert Nicholas

Blair and I shared an office for much of his time at UINR. He was a problem solver and never hesitated to jump into a project even if it wasn't related to what he was working on. If he saw that he could help, he would. We shared a lot of laughs. Blair was famous for his appetite and often had stories about the latest place where he tried the best (usually seafood) dish, or scheduling meetings in Wagmatcook on Wednesdays specifically so they could have corned beef for lunch. Blair's family and friends were so special to him, especially when Nadine or one of the kids would call the office, you could hear the tone of his voice change. He was always so happy to hear from them. I am so grateful to have the honour to have known him, and will miss and think about him always. —Annie Johnson

When I started working at UINR, I shared an office with Blair for one whole year, and we talked and laughed every day. I don't remember everything we talked about, but in my mind I still picture him sitting at his desk with his big smile spitting into empty coke bottles because he always had chew in his mouth. Some things we laughed at were foolish and may not have been funny to others, but we found the simplest things to humour ourselves. He found it especially funny when he and Clifford would go out to buy fish for dinner and make the office smell like a fish processing plant. You knew immediately when you walked in what Blair had for lunch. I would start with the air freshener and opening doors. He would say "smells like someone baking a cake." I'm going to miss that man, his humour, his friendship, but I don't think I will miss the smell of fish. —Serena Paul

We spent a lot of time just chatting as office mates. He was a jack-of-all-trades. He knew a little bit about everything. He was one of the most honest and sincere men I have ever met and he will be greatly missed. —Mark MacPhail

I knew Blair all my life, however, we became good friends while working at UINR. Blair was a man of incredible "niceness," and his dedication to family and friends was surely his most admirable trait. I will truly miss my friend and I still can't believe that he's journeyed to the Happy Hunting and Fishing Grounds with his ancestors at such a young age. Someday, the reality will set in. He has left a positive and friendly impact on many peoples' lives and I know his legacy will live on in his children, family, friends, relatives, and co-workers alike.

—Clifford Paul



# Bras d'Or Lakes eels...

## what we know

While eels have been fished in and around the Bras d'Or Lakes for hundreds of years, we never knew how old they were, how long they could grow, whether we had more female than male eels in the population, or if they had the swimbladder parasite.

UINR recently completed a study to help us understand the local eel population in the Bras d'Or Lakes. The research, supported by Aboriginal Funds for Species At Risk, documented eel habitats outside Unama'ki Mi'kmaq communities and to address some of these questions.

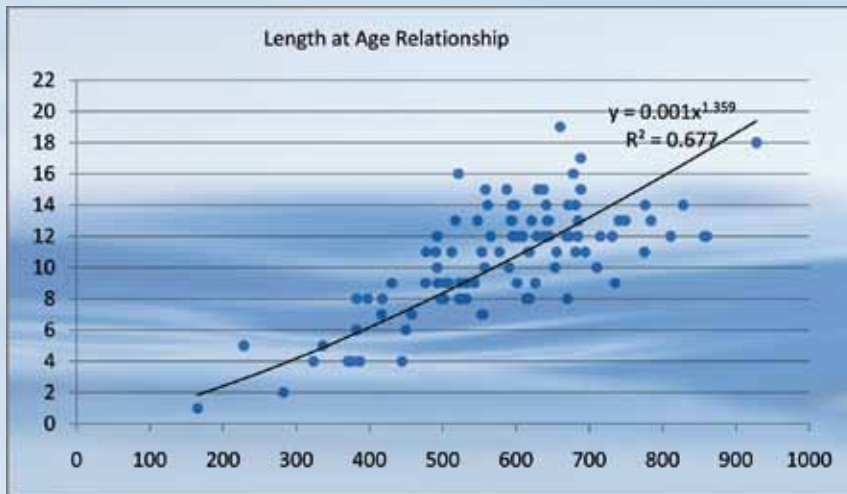
Eels are designated as a Species of Special Concern under the federal Species At Risk Act. This designation means that eels are not as plentiful as they once were, but the current population is not so low that they warrant a threatened or endangered designation.

Through discussions with Mi'kmaq eel fishers, who graciously contributed samples for analyses, and our own surveys in different habitats throughout the Bras d'Or Lakes watershed, we were able to study 188 eels from our primary eel fishing location.

### So what did we learn?

All of the eels that were greater than 30 cm in our samples were females. Yes, every one.

The largest eel we examined was 92.8 cm (0.98 m) and was 1.5 kg. It was 18 years old. The oldest eel we found was 19 years old and she was 66.0 cm (0.660 m) and weighed 612 g (0.612 kg). The smallest eel caught was 16.5 cm and was one year old. This young eel was caught in Christmas Pond in Christmas Island.



The relationship between average age and length was found to be:  
Eel Age = 0.0001 Length<sup>1.359</sup>

There is greater variation in age with the size of the eel. For example, the range of ages for an eel that was 50 cm (0.5 m) was eight to sixteen, while an eel around 40 cm may be four to eight years old.



The swimbladder parasite, *Anguillicoloides crassus*, was found in the Bras d'Or Lakes and was more widespread than we first thought. After two years of sampling, we can confidently report that, overall, approximately 46% of the eels are infected with the parasite. But it's not like this everywhere.

In 2009, Whycomomagh Bay had 65% of infected eels and this increased to 75% in 2010. Nyanza Bay also has a high number of infected eels at 60% in 2009 and increasing in 67% in 2010. Other areas also showed an increase in infection between 2009 to 2010. Infected eels in East Bay eels increased to 27% from 25% and the southern portion increased to 25% in 2010 from no detection in 2009.

The most parasites found in one eel were 75 in Whycomomagh Bay. West Bay was the only area that did not have any eels infected with the parasite. As this parasite only affects eels and not humans, you can still eat eels. It is difficult to determine if an eel is affected with the parasite just by looking at its body.

In general, eels were found throughout the Bras d'Or Lakes and in a variety of habitats. They were commonly fished in the shallow, warm and protected embayments and barachois ponds. Many of our surveys in which we captured eels all had these traits in common and many of the habitats are found both outside and within our communities. All our waters are home to this incredible species. Let's work together to make sure they stay that way.

Many people helped us in our research by providing eels and assisting in many ways: Barry Bernard, Blair Bernard, Winston Bernard, Joe Goo goo, and Charles Young. Dean Denny, Angela Morris, Simon Sylliboy, Tyson Paul, and O'Hara Young assisted with collecting samples and processing. Aboriginal Funds for Species At Risk provided funding to support our research.

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## Protecting Eel Habitat in Unama'ki

Fortunately, eels are still common in the Bras d'Or Lakes, especially outside Eskasoni. From May to October, eels are actively fished along the shorelines. For the other half of the year, they overwinter in barachois ponds and embayments common to the shores of the Bras d'Or Lakes.

Often these areas are not considered important for aquatic life but they are the best places to fish eels. Land activities, such as subdivision developments, can affect water by acting as a source of sediments that make blue water brown when it rains.

In Eskasoni, an important eel fishing and overwintering area was on the receiving end of sediments. UINR's Tyson Paul recalls how brown the water would be after a light rainfall. "We expect to see large volumes of brown, sediment-laden water after very heavy rainfalls," he explained, "but we were seeing this even after showers."

Sediments settle out of the water and can smother life on the bottom. Eel grass gets buried and fish gills become clogged. Aquatic plants can't produce oxygen because sunlight doesn't reach them. While eels like the soft bottom to burrow, their prey doesn't. If there is no food for the eels, there will be no eels in the area.

In the fall of 2010, UINR met with Fisheries and Oceans Canada and Nova Scotia Environment to discuss ways to fix the problem. In March 2011, 315 metres of ditch was re-created and lined with rock. To prevent flooding and uptake of sediments from the road, five culverts were re-aligned and one was replaced. Two outlets of riprap were created to help slow down the flow of water. The remediation was successful. It was found that the lining reduced sediments by 98% during light rainfall events.

UINR works with communities to promote practices that encourage people to be kind to nature. Shelley Denny is UINR's Biologist and Research Coordinator. She believes that change is necessary. "Our actions on land are harming the beauty and quality of our water. After it rains, it takes longer for brown water to become clear and longer for eel fishers to put food on the table. Our actions affect our traditional way of life. To maintain traditional fishing areas, we need to change how we do things on land."

The project is a model of how to do things differently in our community and make a positive affect on water quality. Funding was provided through Environment Canada's Habitat Stewardship Program.

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Top: Parasites in eel swimbladder; Middle: Healthy eel swimbladder;  
Bottom: Infested swimbladder

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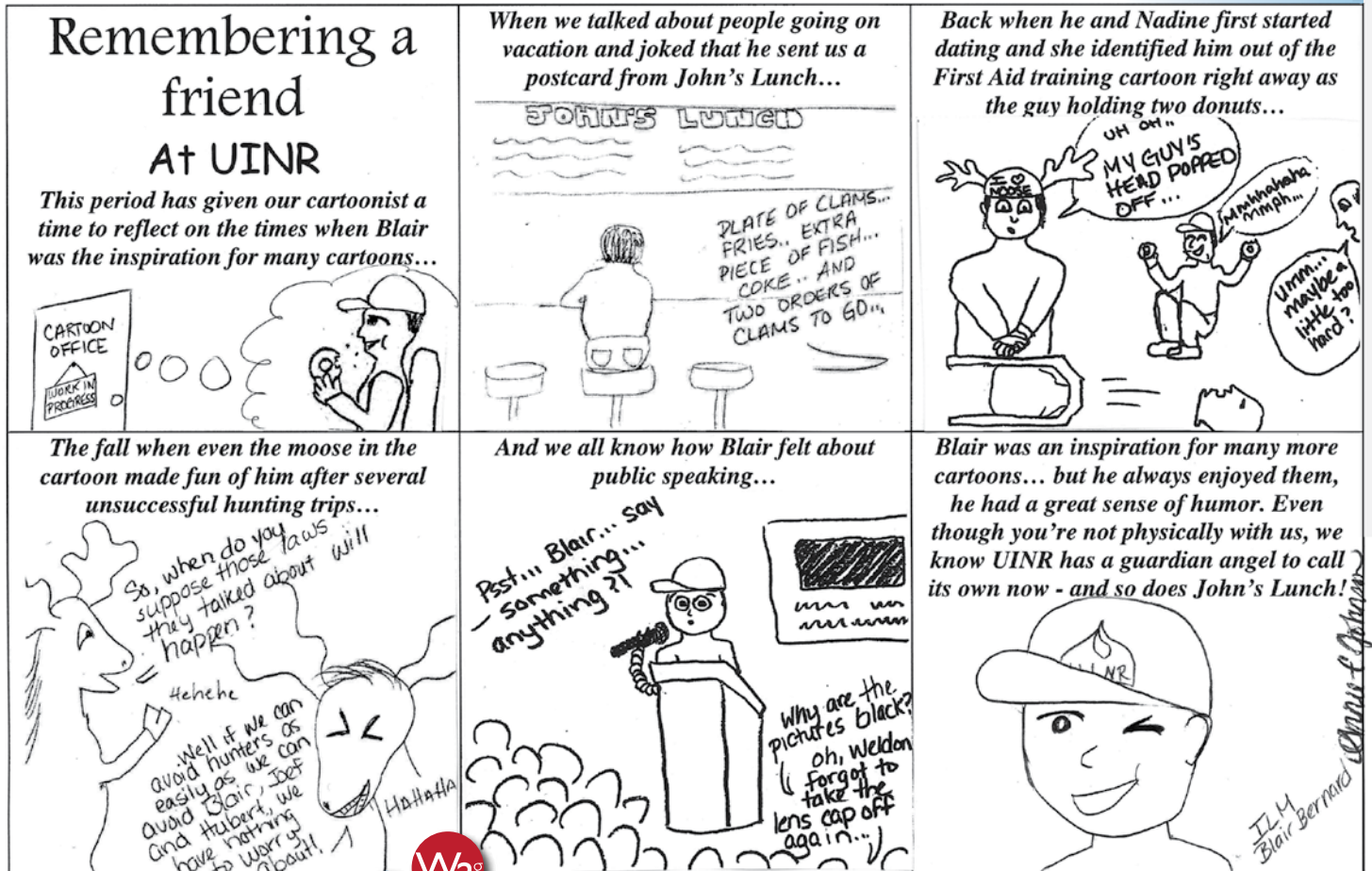
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