Unama'ki Institute of Natural Resources

UINR marten

Eskasoni • Membertou • Potlotek • Wagmatcook • We'koqma'q

Volume 9 • Issue 4• Kesik/Winter 2014

THIS ISSUE

UINR Marten is published quarterly by the Unama'ki Institute of Natural Resources. Subscriptions are free and copies may be downloaded from uinr.ca

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Ice safety training

Never let it be said that UINR Guardian Coordinator Keith Christmas doesn't know how to make a big splash! In the coldest part of this winter, Keith organized a day-long training session for Unama'ki guardians. Guardians often find themselves on the ice in their day-to-day duties, and being prepared and knowing what to do in an emergency is key to getting home safely, if not dry!

Instructors Lyse Boyce and Blair Doyle from Adventure and Safety Atlantic conducted the hands-on workshop with a dozen participants from around Unama'ki. And when we say hands-on we really mean it. Participants took turns being rescued and being rescuers, falling through the ice and into the Bras d'Or Lakes' frigid waters.

So what do you do if you or a friend falls through the ice? First of all, never go out on the ice alone, and when you are on the ice with a group, spread out to distribute your weight across the ice surface. If you do fall in, don't panic. Regulate your breathing and stay calm. Kick your feet and make your way to the ice edge. Shimmy your way up to the thicker ice surface and stay low, distributing your weight until you can make your way to safety.

If you are on the ice with a friend, they can help by throwing you a rope and pulling you in, again staying low on the ice surface.

These are just a few of the tips that were covered in the day's training. Remember: the only absolute in ice safety is to stay off the ice.

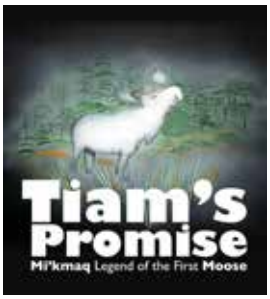
Ice safety information

- Transparent, clear ice is the strongest type of ice.
- Snow ice is porous with low density and is considered to be very weak ice.
- Cold shock to the body occurs under 15°C (59°F).
- The minimum temperature of ice water is 4°C.
- Relative strength of ice $P=50\,T^2$. P is safe load in pounds and T is thickness of clear ice.
- Ice requires constant cold temperatures to support its maximum load.
- Currents can weaken ice and ice can also be affected by water depth and wind.
- Each rescuer is responsible for their own safety and have the right to say "NO GO."

keith@uinr.ca

Unama'ki Institute of Natural Resources

NEWS



The next video in our Mi'kmaq Legend series is "Tiam's Promise: Mi'kmaq Legend of the First Moose," a follow-up to "Did Eels Change the Course of History?" It will be released this spring. Watch our Facebook page for details on its premiere...On the topic of moose, UINR also has a couple of publications that will be released this spring, one, a children's book, and the other is on Mi'kmaq Ecological Knowledge...If that isn't enough moose stuff to keep you busy, our long-awaited documentary on the Moose Management Initiative, "Our Rightful Place" will also premiere this spring!... UINR partner Pitu'paq is continuing its Unama'ki Water and Wastewater Vulnerability Assessment and Adaptation Planning Project on Climate Change with community sessions in Potlotek. Visit pitupaq.ca for more information...Malikewe'j is an important place to Mi'kmaq people everywhere. UINR is collecting information for a publication on the historic site. We are also working on a project to install a permanent monument to the people of Malikewe'j...The Louisbourg Institute at CBU, in partnership with The Purdy Crawford Chair in Aboriginal Business Studies and Parks Canada are hiring a CBU student to conduct more research on Mala in May and June...UINR partner CEPI held an open house in Whycocomagh to show the documentary film "Shellshocked" and to distribute information on oyster sanctuaries in the Bras d'Or Lakes...Be sure to check out CEPI's website brasdorcepi.ca for information on the winners of this year's Golden Awards...

www.uinr.ca

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

If you are a Facebook user (and who isn't) be sure to LIKE our UINRpage. It's growing fast and if you take a visit you'll see why! There are albums of photos and up-to-minute information on everything from fishing eels to invitations to our events, workshops and training opportunities. Recent examples are photos of our ice safety training, barachois assessments and Elders' meetings. See how many people you recognize! This is also the best place to stay tuned on any employment and other opportunities that arise.

Watch our website this spring for a flurry of new publications and videos that will be available in the LIBRARY at uinr.ca. We have some great stuff coming out that will be both entertaining and educational...entercational! :)

If you use Twitter, be sure to join our followers! It's the best way to stay informed on new additions to our website and all the latest updates.

Ice safety training participants–Back: Stephen Lafford, Ryle Googoo, Simon Denny, Anthony Pierro, George Christmas, Blair Doyle, Joey Phillips, Lyse Boyce; Front: Tyson Paul, Ben Lafford, Keith Christmas, Angela Denny, Shelley Porter; Missing from photo: John T. Johnson

pjila'si

UINR Community-Based Water Quality Monitors Lorraine Marshall and Tyson Paul were awarded Certificates of Achievement recognizing their contribution to ensuring safe drinking water quality in Membertou, Potlotek, Wagmatcook and We'koqma'q.

Nova Scotia Fisheries and Aquaculture Minister, Honourable Keith Colwell tours the labs and is briefed on the fisheries-related projects that UINR is involved in. Here Mr. Colwell is pictured with UINR's Executive Director Lisa Young, Charlie Dennis, and We'koqma'q councillor Bobby Gould.

Videographer Madeline Yakimchuk makes adjustments to UINR Moose Coordinator Clifford Paul's microphone for the taping of our moose legend video: Tiam's Promise.

UINR's Annie Johnson, Lisa Young, Charlie Dennis, and Nadine Lefort meet with Elders and community members knowledgeable on Malikewe'j–Steve Dennis, Veronica (Flo) Young, Joe Googoo, Andrew Gould, and Tom Silliboy–to collect information for our new publication on Mala.

Welcome

At UINR, we feel that one of the best things we can do to appreciate our environment and understand our natural resources is to just to get outside and enjoy it. As you can see in this issue, this doesn't just apply to warm summer days, but it is just as much fun to get out on a cold and sunny winter day. One of the best parts about living in Unama'ki is that we get to enjoy four different seasons, each with something new to offer.

One of the big issues these days is "Screen vs. Green," the importance of balancing the time on our computers, phones, and watching TV with spending time in nature. Studies are showing that there is a whole range of health problems associated with our ever-increasing time "on screen"–weight gain, obesity, depression, attention deficit disorder, and other health problems.

In a recent study that surveyed 1000 students who gave up technology for 24 hours, the majority had no idea what to do with their time, described themselves as being addicted, and felt lost and lonely. Many participants were not able to go one day without!

Research shows that spending time in nature can improve memory and benefit your physical and mental health. So, in addition to restricting your children's (and your own) screen time, get outdoors, take a hike, go skating, swimming, or just watch the clouds go by. Try having a screen-free day and see what fun you can have and how much better you'll feel!

lisa@uinr.ca

NR

Lynx tracking

Canada lynx (*Lynx canadensis*) are endangered in Nova Scotia and are found in only three areas in Unama'ki. One area where they are found is in the East Bay Hills, the site of a proposed wind power project that would see 31 generators constructed.

UINR has been conducting a lynx monitoring program to determine if lynx and its main prey, the snowshoe hare, are present in the area of the proposed project. UINR's Director of Forestry Mark MacPhail and Forestry Technician Jason MacLean have been surveying the area throughout the winter. With the tracking they conducted, there is a good evidence that lynx inhabit the area.

Lynx tracks are fairly easy to distinguish from fox, coyote, and bobcat, with four toe pads on front and hind feet. While coyotes and fox prints show claws, lynx and bobcats do not. What sets apart lynx from bobcat tracks is the size of the paw print. In snow, lynx tracks are up to 11.5 cm long and 12.5 cm wide, and bobcats only 6.5 cm long and 7 cm wide.

While lynx are not at risk in Canada, in mainland Nova Scotia they are considered to be "extirpated" (locally extinct but present elsewhere.) In Unama'ki, it is estimated that the population varies from lows of 95–140 to highs of 475–525.

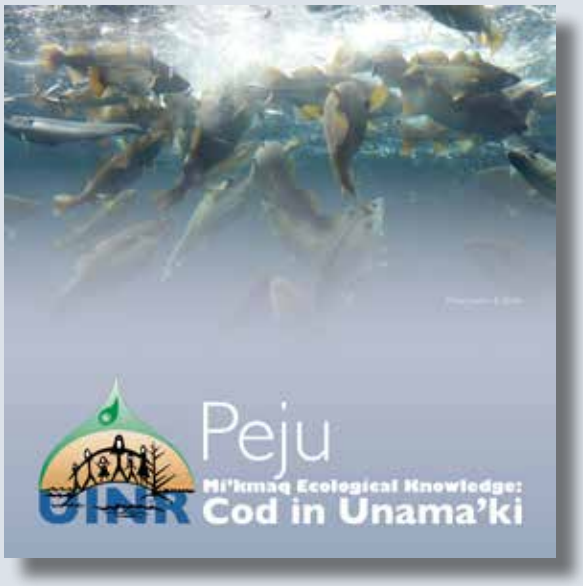
mark@uinr.ca

Two new publications

One of UINR's strong points is the blending together of traditional Mi'kmaq knowledge and western science to give a deeper and more meaningful understanding of species in our natural world.

These two new publications–Ji'kaw Striped Bass in Unama'ki and Peju Cod in Unama'ki–join our other publications on Mi'kmaq Ecological Knowledge on Eel and Salmon. Together they give a deep understanding of these species, their history, and importance to the health, well-being, and survival of Mi'kmaq people.

Information gathered for these publications was collected through a series of interviews and workshops that followed established Mi'kmaq Ecological Knowledge protocols. This knowledge comes from watching and listening, through direct experience of song and ceremonies, through the activities of harvesting and daily life, from trees and animals, and in dreams and visions.



Participants included a balance of Elders, current harvesters, Aboriginal Fishery Guardians, and knowledge holders. Knowledge holders were not randomly selected. Selection of Elders was based on a referral method from UINR's Elder Advisor. Current harvesters were selected from a pool of individuals who were representative of active harvesters.

Copies of these publications, and others, are available free of charge from the UINR website uinr.ca

shelley.denny@uinr.ca

it's all about the partnerships

Fish–WIKS

Fisheries–Western and Indigenous Knowledge Systems

We all know that fish is wikk...but what do you know about Fish-WIKS? Well, Fish-WIKS is UINR's latest partnership and we're working with people and groups across Canada, looking at ways that commercial fisheries can use traditional indigenous practices in improving governance and management.

Over the next four years, Fish-WIKS is researching four regions and communities across Canada (Tla-o-qui-aht, British Columbia; Repulse Bay, Nunavut; Nipissing, Ontario; and Eskasoni, Nova Scotia.) We're looking at how different groups have similar viewpoints and how we are different.

Shelley Denny, UINR's Director of Aquatic Research and Stewardship, is our representative on Fish-WIKS' steering committee. "UINR is a perfect partner in this project because we have been researching and promoting Mi'kmaq ecological knowledge for many years and the concept of netukulimk is central to the work we do. Netukulimk, a philosophy of care and respect, is the central philosophy of traditional Mi'kmaq management. Resource management that aligns with netukulimk honours the integrity, diversity, and productivity of our environment for present and future generations."

Fish-WIKS is working with both users and decision makers, and the research will focus on examining the extent to which western and indigenous knowledge systems influence fisheries governance, and understanding how distinct indigenous knowledge systems can improve current efforts.

Central to Fish-WIKS are the Community Liaison Coordinators who provide a link between participating communities and rest of the research team. The role of the Coordinator is to make the community aware of the project and to organize meetings and other events. **Tyson Paul** of Eskasoni is our Coordinator. "FISH WIKS is helping me expand my knowledge about Eskasoni and to see the differences and similarities between the other Fish-WIKS communities."

Amber Giles is joining the Fish-WIKS team as a researcher with a focus on eels. Amber is a Masters student at Dalhousie University and will be doing research in Eskasoni over the next two years.

Front Row: Audrey Mayes, AFN; Alex Gagne, BCFNFC; Janelle Kennedy, Government of Nunavut
Middle Row: Clint Couchie, Community Liaison Coordinator, Nipissing; Lucia Fanning, Project Director, Dalhousie; Shelley Denny, UINR; Grant Murray, VIU
Back Row: Saul Milne, PhD student; Dan Pujdak, AFN; Brennan Daly, PhD student; Chris Milley, Dalhousie; Will David, AFN
Missing from photo: Deb McGregor, U of Toronto; Jeji Varghese, U of Guelph; Steve Crawford, U of Guelph; Tyson Paul, UINR; Lucy Tegumiar, GN; Terry (Seit-cha) Doward, BC First Nations

Fish-WIKS is led by the Assembly of First Nations and Dalhousie University in partnership with the Government of Nunavut, Unama'ki Institute of Natural Resources, BC First Nations Fisheries Council, and researchers from Vancouver Island University, University of Toronto, and University of Guelph. Fish-WIKS is funded by the Social Sciences and Research Council of Canada.

OYSTER garden

by Charlie Dennis

Restocking Salmon

On a beautiful November day late last year, I had an opportunity to participle in the release of 13,000 baby salmon in Middle River, Victoria County.

With a few inches of snow on the ground, it felt a little more like winter. As I looked down the long, winding Middle River which flows through a valley between the Highland mountains, I saw the crystal clear water flowing gently, and thought how this pleasant valley is a picture-perfect setting.

The plan was for everybody to meet at the Twin Churches along the Cabot Trail in Middle River, an easy landmark to find. There were two guardians from We'koqma'q, Joe Philips and Ryle Googoo from UINR, Weldon Bona, UINR Director of Communications; and from the Fish Hatchery in Margaree, Sean Neary and Andrew Morrison.

Sean and Andrew are the people that raised the salmon to be released in the river. Young salmon at this stage in their life cycle are called parr. Sean took a moment to explain the initiative and it was decided we would release the parr in three different areas in the Middle River: Twin Church Pool, MacDonald's Brook (a small brook that flows into Middle River), and a site at the bottom end of a bridge I think called MacLellan's Bridge, across the road from Chuck Thompson's house.

Sean Neary

Ryle Googoo and Joe Philips

We released several thousand parr at the first site, as you can see from the pictures. I watched the little fish as they were released. About two thirds of them stayed together in one school, and the rest took off to deeper parts of the river. I figured these were the smart ones that are likely to survive–they felt at home in the river. The bunch in the pool looked confused and lost, like they were still trying to figure out where they were. Sean commented that these are the times when the parr are most vulnerable to predators like kingfishers, mergansers, and rainbow trout.

The second site was similar to the first but, at our last site at MacLellan's Bridge, while the group was filling the last tub of parr, I strolled to the bridge and looked down to see if there were any fish in the water below. To my surprise, there were three large adult salmon gently resting in the slow-moving current! It was an awesome sight and I called over my partners to take a peek at what I saw. They were amazed too, and somebody commented that we probably fed those fish real good with all those baby salmon. I told them that these salmon had probably just spawned and might not be too hungry. At least that what I hoped!

After our expedition, I asked Sean about the story of those baby salmon and the process for them to be released in the Middle River.

Sean explained that, for several years, the fish hatchery has collected adult salmon in the fall from Middle River; they aim to capture four females and four males. They bring them back to the Margaree Hatchery where they are allowed to rest and recover from the capture. When it's

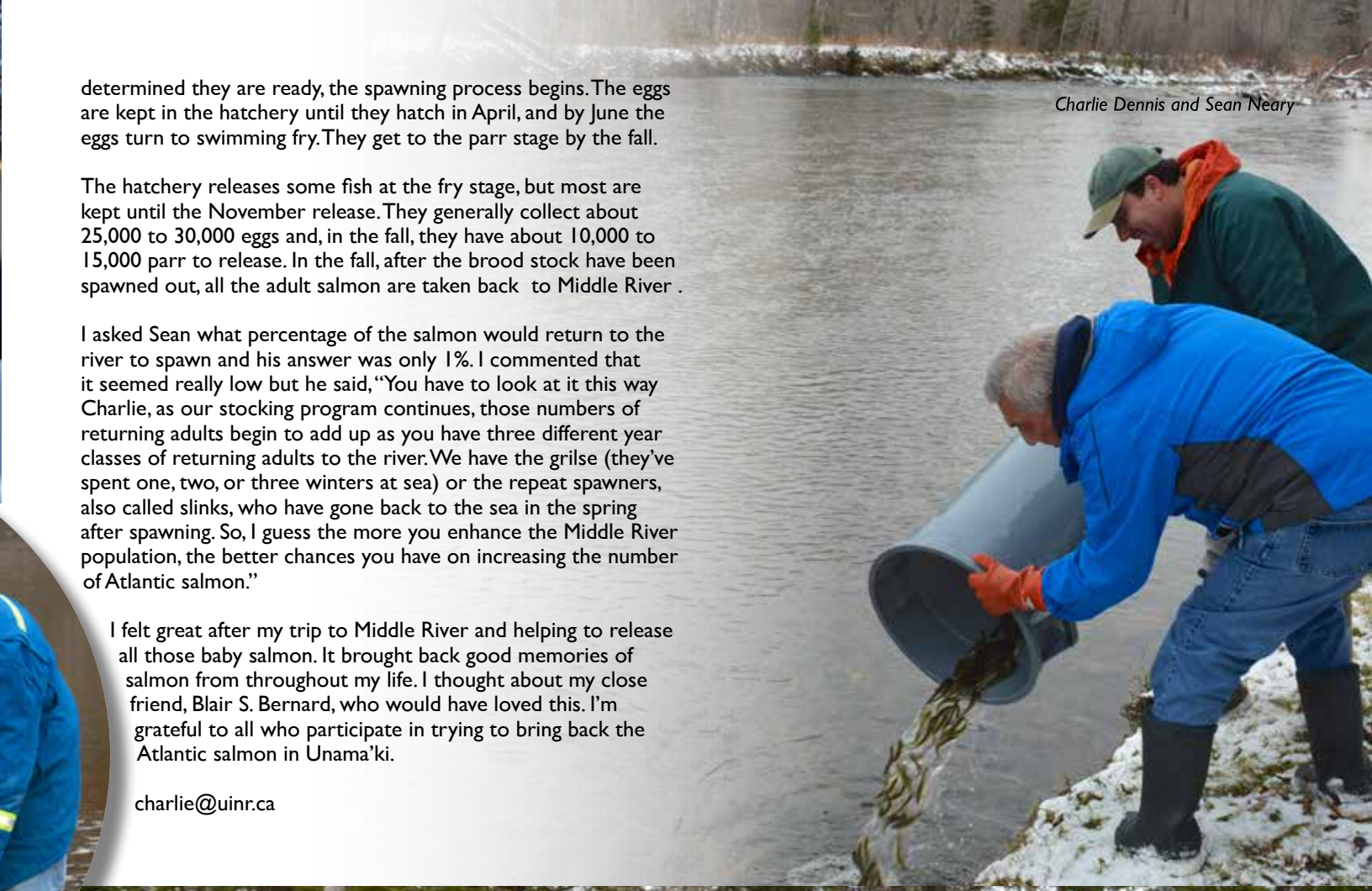
determined they are ready, the spawning process begins. The eggs are kept in the hatchery until they hatch in April, and by June the eggs turn to swimming fry. They get to the parr stage by the fall.

The hatchery releases some fish at the fry stage, but most are kept until the November release. They generally collect about 25,000 to 30,000 eggs and, in the fall, they have about 10,000 to 15,000 parr to release. In the fall, after the brood stock have been spawned out, all the adult salmon are taken back to Middle River .

I asked Sean what percentage of the salmon would return to the river to spawn and his answer was only 1%. I commented that it seemed really low but he said, "You have to look at it this way Charlie, as our stocking program continues, those numbers of returning adults begin to add up as you have three different year classes of returning adults to the river. We have the grilse (they've spent one, two, or three winters at sea) or the repeat spawners, also called slinks, who have gone back to the sea in the spring after spawning. So, I guess the more you enhance the Middle River population, the better chances you have on increasing the number of Atlantic salmon."

I felt great after my trip to Middle River and helping to release all those baby salmon. It brought back good memories of salmon from throughout my life. I thought about my close friend, Blair S. Bernard, who would have loved this. I'm grateful to all who participate in trying to bring back the Atlantic salmon in Unama'ki.

charlie@uinr.ca



Charlie Dennis and Sean Neary

Sean Neary

Andrew Morrison and Charlie Dennis

UINR Staff

Lisa Young lisa@uinr.ca
Executive Director

Weldon Bona weldon@uinr.ca
Director of Communications

Keith Christmas keith@uinr.ca
Unama'ki Guardian Program Coordinator

John Couture john.couture@uinr.ca
Commercial Fisheries Liaison Coordinator

Charlie Dennis charlie@uinr.ca
Senior Advisor

Angela Denny angela@uinr.ca
Research Assistant

Shelley Denny shelley.denny@uinr.ca
Director of Aquatic Research and Stewardship

Annie E. Johnson annie@uinr.ca
Director of Administration

Jason MacLean jason@uinr.ca
Forestry Technician

Mark MacPhail mark@uinr.ca
Director of Forestry

Albert Marshall albert@uinr.ca
UINR Elder Advisor

Lorraine Marshall lorraine@uinr.ca
Community Drinking Water Quality Monitor & Sanitary Shoreline Survey Technician

Clifford Paul clifford@uinr.ca
Moose Management Coordinator

Serena Paul serena@uinr.ca
Administrative Assistant

Tyson Paul tyson@uinr.ca
Research Assistant and FISH-WIKS Community Liaison Coordinator

Shelley Porter shelley@brasdorcepi.ca
CEPI Coordinator

Billy Taylor billy@uinr.ca
Finance Officer

Mailing Address
PO Box 8096
Eskasoni NS B1W 1C2

Street Address
4102 Shore Road
Eskasoni NS B1W 1C2

Phone
902 379 2163
Toll Free
1 888 379 UINR (8467)

Fax
902 379 2250

E-mail
info@uinr.ca

Web
uinr.ca

Our resident cartoonist broke her funny bone!
In the meantime, here are a few of our favourite panels from the past.
Don't worry, she'll will be back next issue with a new cartoon.

Wa We Me Po Es

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