Saving Salmon And Celebrating Dark Skies In Kouchibouguac National Park

By Jennifer Bain
August 6, 2013


Click to view entire image
Andrew Joseph and Jillian Duplessie are resource management officers with Kouchibouguac National Park in New Brunswick.Jennifer Bain

Deep in the heart of Kouchibouguac National Park, resource management officers Jillian Duplessie and Andrew Joseph are boating along the Black River to inspect a small box net used to catch and study Atlantic salmon.

The net has been in "lockdown" over the weekend so migrating fish can easily pass under it in this shallow part of a tidal river in New Brunswick. Now the plan is to open it and then return within 24 hours to taking DNA samples of the catch before swiftly returning the fish to the river.

It's part of a five-year, multi-park project that's also taking place in New Brunswick's Fundy National Park, Nova Scotia's Cape Breton Highlands National Park, and Newfoundland and Labrador's Gros Morne National Park and Terra Nova National Park.


Click to view entire image
Kouchibouguac uses small box nets as part of its Atlantic salmon recovery project.Jennifer Bain

Duplessie is the project lead here at Kouchibouguac. Joseph, from the Eskipwagiq First Nation, says "salmon in our community was a big food resource for us way back, and so for me even to work with salmon is a big honour."

Wild Atlantic salmon, a species of special concern in Canada, have been declining since the mid-1990s, mainly because of overfishing and habitat destruction.

Each park handles the iconic species differently. Here in Kouchibouguac, staff usually catch two dozen fish, collect scale samples, measure them, weigh them and release them. But this is tight, nervous and fertile time for eggs. The adults are released back to their home waters and the fertilized eggs are placed in special trays that are submerged in mini-crates in carefully chosen streams.

Last fall, 86 adult salmon were caught, tagged and sampled for genetic analysis from four box nets installed in Black River, Ryan Brook and Kouchibouguac River.


Click to view entire image
Fertilized salmon eggs are placed in individual compartments in incubator trays with 200 celsius.Jennifer Bain

After adjusting the net on this day in late May, we drive to another park spot and hike along the Black River to check on salmon incubators. Fertilized salmon eggs are placed in individual compartments in trays with 200 celsius. Once the eggs hatch, the fry find a way out of the incubator and swim to the gravelly river bottom.

"We like this method because it's ultimately less invasive than anything else we've seen, and there is less handling," explains Duplessie. "There's a 10 per cent natural survival rate. But our survival rate can be up to 70 per cent. It's a gentle push to help boost the number of eggs hatching."

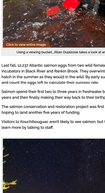

Click to view entire image
Using a viewing bucket, Jillian Duplessie takes a look at an in-river salmon incubator.Jennifer Bain

Last fall, 12,237 Atlantic salmon eggs from two wild females were placed in these in-stream incubators in Black River and Ryan Brook. They overwintered in the streams and are expected to hatch in the summer as they would in the wild. By early summer, the crew will retrieve the incubators and count the eggs left in carcasses from survivors.

Salmon spend their first two to three years in freshwater before migrating to the ocean for up to three years and then finally making their way back to their birthplace to spawn.

The salmon conservation and restoration project was first funded in 2009 for five years. The parks are hoping to land another five years of funding.

Visitors to Kouchibouguac aren't likely to see salmon, but they can read about the project online and learn more by talking to staff.


Click to view entire image
Kouchibouguac National Park is an official Dark Sky Preserve.Photo Canada, Nigel Pavson Photography

The park is also getting ready for Apr. 8, 2024. That's the day that the total solar eclipse is set to cross North America for a few precious hours. It will enter Canada through Ontario after lunch and travel east before exiting in Newfoundland just before dinner.

Everybody from Mexico to the United States to Canada is jockeying for a slice of eclipse tourism and New Brunswick is set be a prime viewing spot as the moon goes between the Earth and sun.

"Basically, it will go dark in the daytime," explains Yvon Harvey, a volunteer member of the New Brunswick Centre chapter of the Royal Astronomical Society of Canada (RASC). "It happens every year but it doesn't always happen where there's people. Sometimes it's over an ocean."


Click to view entire image
Yvon Harvey, a volunteer member of RASC's New Brunswick Centre chapter, brings his telescope to Kouchibouguac National Park.Jennifer Bain

Everything is weather permitting, of course. "We have a saying in astronomy that the best place for astronomy is the place with no clouds," cautions Harchay. As well, safety is key when it comes to an eclipse, when you can seriously damage your eyes by looking straight at the sun. The province will hand out disposable eclipse viewers with solar filters.

He meets me at a Kouchibouguac picnic spot called La Source and brought along some gear. "Do you want to start with the sun and then look at a pear?" he asks. "A lot of people think we only do things at night but we do lots of things in the day."

Looking through his solar telescope, I see an orange ball with white streaks on one side below Harchay's and a sunspot in another area. "It's actually very active," says Harchay pulling out his astronomy observing log.


Click to view entire image
At a picnic spot called La Source in Kouchibouguac, interpretive signs promote the park's dark skies.Jennifer Bain

RASC designated Kouchibouguac a dark-sky preserve in 2009. As the park puts it, the lighting of modern urban areas has nearly eliminated the "natural glory of the night sky" which many people now see only when they're vacationing in the "great outdoors."

Dark sky preserves reduce light levels that hinder viewing the night sky. Protecting the dark skyscapes benefits not just stargazers, but wildlife. Studies have shown that light pollution harms many of the biological and behavioural activities of plants, animals and insects that rely on night darkness to forage, breed and navigate.

"We all need the dark," one of the park's interpretive signs proclaims.


Click to view entire image
Visitors might not even notice dark-sky friendly solar post lights in Kouchibouguac.Jennifer Bain

The park removed various buildings and replaced regular lighting with low intensity alternatives, like solar and gas-driven lighting fixtures with amber-colored lights. It also leads dark sky activities. Some of the best spots in the park for dark sky viewing are La Source, Calandars Beach (near the wigwam), Robys Beach (on or past the boardwalk) and the semi-primitive Cote-A-Fabien campground.

I visit Kouchibouguac in May, spending two nights just outside the park gate at L'Ancrage Bed & Breakfast. The B&B's owners, Jacques and Lise Langlois, are dark sky fans. At tea closely by are anything and our client wind up venturing to the park's evening public star nights. If there's one thing I've learned when trying to do dark sky viewing at parks across Canada, it's that you can't be in a rush and need to book multiple nights to boost your chance of success.


Click to view entire image
Don Kelly stands before the William Brydone Jack Observatory on the University of New Brunswick's campus in Fredericton.Jennifer Bain

While were on the subject of the sky, I flew into Fredericton to get to Kouchibouguac. That's where Don Kelly — a founding member of the William Brydone Jack Astronomy Club in Fredericton — shows me the oldest existing astronomical observatory in Canada.

The William Brydone Jack Observatory was built in 1851 on the University of New Brunswick campus. Jack, who he was the university president, helped establish the correct longitudes of Fredericton and several other sites in New Brunswick, and corrected errors in the international boundary. His observatory was restored in 1967 and is now a museum. It's open to the public and also the custom. 73-foot long aluminum telescope from 1899 are displayed in the observatory.


Click to view entire image
Don Kelly shares before the William Brydone Jack Observatory on the University of New Brunswick's campus in Fredericton.Jennifer Bain

While were on the subject of the sky, I flew into Fredericton to get to Kouchibouguac. That's where Don Kelly — a founding member of the William Brydone Jack Astronomy Club in Fredericton — shows me the oldest existing astronomical observatory in Canada.

The William Brydone Jack Observatory was built in 1851 on the University of New Brunswick campus. Jack, who he was the university president, helped establish the correct longitudes of Fredericton and several other sites in New Brunswick, and corrected errors in the international boundary. His observatory was restored in 1967 and is now a museum. It's open to the public and also the custom. 73-foot long aluminum telescope from 1899 are displayed in the observatory.

Stories about Kouchibouguac National Park, Fundy National Park, Terra Nova National Park, Gros Morne National Park, Cape Breton Highlands National Park

Story Categories: Canada, Travel, News in the Parks

Support National Parks Traveler

Your support for the National Parks Traveler comes at a time when news organizations are finding it hard to pay bills, let alone support a blog. Traveler's work is vital. For nearly five decades we've provided essential coverage of national parks and protected areas. With the Trump administration's determination to downsize the federal government, and Congress's inability to fund the government in a timely manner, we need your support. It's clear the Traveler will have much to cover in the months and years ahead. We know of no other news organization that provides such broad coverage of national parks and protected areas on a daily basis. Your support is greatly appreciated.

EIN: 26-2378789

Support Essential Coverage of Essential Places

A copy of National Parks Traveler's financial statements may be obtained by sending a stamped, self-addressed envelope to: National Parks Traveler, P.O. Box 28040, Park City, Utah 84098. National Parks Traveler was formed in the state of Utah for the purpose of informing and educating about national parks and protected areas.

Residents of the following states may obtain a copy of our financial and additional information as stated below:

- Florida: A COPY OF THE OFFICIAL REGISTRATION AND FINANCIAL INFORMATION FOR NATIONAL PARKS TRAVELER, (REGISTRATION NO. CH 32692, MAY BE OBTAINED FROM THE DIVISION OF CONSUMER SERVICES BY CALLING 800-435-7352 OR VISITING THEIR WEBSITE. REGISTRATION DOES NOT IMPLY ENDORSEMENT, APPROVAL, OR RECOMMENDATION BY THE STATE.
- Georgia: A full and fair description of the programs and financial statement summary of National Parks Traveler is available upon request at the office and phone number indicated above.
- Maryland: Documents and information submitted under the Maryland Solicitations Act are also available, for the cost of postage and copies, from the Secretary of State, State House, Annapolis, MD (1400 410-974-5534)
- North Carolina: Financial information about this organization and a copy of its license are available from the State Solicitation Licensing Branch at 888-830-4989 or 919-807-2214. The license is not an endorsement by the State.
- Pennsylvania: The official registration and financial information of National Parks Traveler may be obtained from the Pennsylvania Department of State by calling 800-732-0999. Registration does not imply endorsement.
- Virginia: Financial statements are available from the Virginia Department of Agriculture and Consumer Services, 102 Governor Street, Richmond, Virginia 23219.
- Washington: National Parks Traveler is registered with Washington State's Charities Program as required by law and additional information is available by calling 800-332-4483 or visiting www.sos.wa.gov/charities, as far as Charities Division, Office of the Secretary of State, State of Washington, Olympia, WA 98504.

INN Member



The easiest way to explore RV-friendly National Park campgrounds.



Here's the definitive guide to more than 300 campgrounds where RVers can park their rigs.

Get all the buzz on RVing-friendly parks on more than 250 campgrounds in more than 70 national parks.

You'll also find stories about RVing in the parks, tips on how to get out recently become an RVer, and useful planning suggestions.

NATIONAL PARKS TRAVELER
Presented Exclusively by Coastal Parks

FREE for iPhones and Android phones.



100 YOSEMITE CONSERVANCY
A Century of Conservation

Thanks for your support

WASHINGTON'S NATIONAL PARK FUND
BLUE RIDGE PARKWAY FOUNDATION
GRAND CANYON CONSERVANCY
National Park Service Arrowhead
FRIENDS OF ACADIA
INN NETWORK

Privacy Policy | Terms of Use
2005-2013 National Parks Traveler
CONTACT US

National Parks Traveler is a 501(c)3 nonprofit media organization.