First Nations Liaison/Field Monitor Report

Completed by: Austin Paul

Report covering the period from: June 15th- July 15th 2016

Dates: June 15th, 18th, 20th, 21st, 24th, 27th, 2016 and July 4th, 5th, 6th, 11th, 12th, 13th, 14th, 2016

Activities conducted

Striped bass studies near the tailrace of the Mactaquac Generating Station. This work was carried out by the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Pertinent Tasks

- Active angling was carried out from the shore.
- When striped bass were hooked and landed, they were placed in a tank filled with fresh water, ethanol and clove oil.
- Once the fish had been sedated, they were weighed, measured and fitted with an identification tag below the dorsal fin. A clipping of the caudal fin and scale samples were taken for genetic studies.
- We analyzed the stomach contents of the bass using a specially designed stomach pump before returning the fish to the river.

Interests and Potential Concerns from a First Nations Perspective

The striped bass work is non-invasive and does not pose a threat to any archaeological and/or traditional land use sites. No incidental deaths occurred as a result of the study. The striped bass were harder to catch on hot days. There also seems to be a connection between heavy water flow rates and good fishing. Many of the fish that were caught had discolorations on their skin, possibly associated with parasites. Seeing as we were releasing the fish, there was no way to find out exactly what was causing the lesions on the striped bass.

Photographs

Date: June 29th, 2016

Activities conducted

Muskellunge studies at the fish hatchery below Kingsclear First Nation. This work was carried out by the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Pertinent Tasks

- Muskellunge that are incidentally caught in the fish lift at the Mactaquac Generating Station are transported to the fish hatchery where the fish are sorted.
- CRI staff sedate the muskellunge and follow the same procedure as was mentioned in the striped bass study: the fish are weighed, measured and tagged before pumping the stomach and analyzing the contents.
- The Muskies are then returned to the Wolastoq, where the movements can be tracked.
- Thus far, only the remains of gaspereau have been identified in the stomachs of both muskellunge and striped bass.

Interests and Potential Concerns from a First Nations Perspective

The muskellunge work is non-invasive and does not pose a threat to any archaeological and/or traditional land use sites. No incidental deaths occurred as a result of the study.

Photographs

Dates: July 4th, 5th, 2016

Activities Conducted

American eel studies downstream from the Mactaquac Generating Station. This work was carried out by the Canadian Rivers Institute in support of the Mactaquac Aquatic Ecosystem Study.

Pertinent Tasks

- Travel via watercraft to habitat trap locations throughout the Wolastoq River.
- The traps would be carefully pulled from the water, placed in a large plastic tote and carefully analyzed.
- Any captured eels would be sedated in a mixture of fresh water, ethanol and clove oil. The habitat traps would be reset.
- All of the eels would be weighed, measured and photographed prior to being released.
- Water flow would be measured and the temperature of the water recorded.
- A different type of trap was used for eel studies at night. A weighted net is placed on the river bottom and left for 10 minutes at a time.

Interests and Potential Concerns from a First Nations Perspective

The eel work is non-invasive and does not pose a threat to any archaeological and/or traditional land use sites. No incidental deaths occurred as a result of the study.

Photographs


Canadian
Rivers
Institute

Dates: July 7th, 8th, 2016

Activities Conducted

Archaeological surveys in the proposed project development area associated with the Mactaquac Project. This work was carried out by Stantec Consulting.

Pertinent Tasks

- We began our survey by studying historical aerial photographs of the project development area (PDA) in order to establish the locations of historical structures associated with old farms.
- A pedestrian survey of the high and medium potential archaeological buffers was carried out: no pre-contact artifacts were found although we did identify the stone foundations of structures that were visible in the historical aerial photographs (pre-dam).
- This survey is on-going and will resume later in the month of July.

Interests and Concerns from a First Nations Perspective

Although the area that is encompassed within the PDA had been altered by the construction of the dam and transmission lines, we were able to find areas that appeared not to have been significantly altered. It is possible that these unaltered areas may yield pre-contact artifacts; however this can only be confirmed when sub-soil testing is carried out. The landscape morphology is indicative of the possibility of finding very ancient sites. There are flat terraces present in the area that may have been appealing when overall water levels were much higher. These terraces will receive special attention as the study progresses.

Photographs