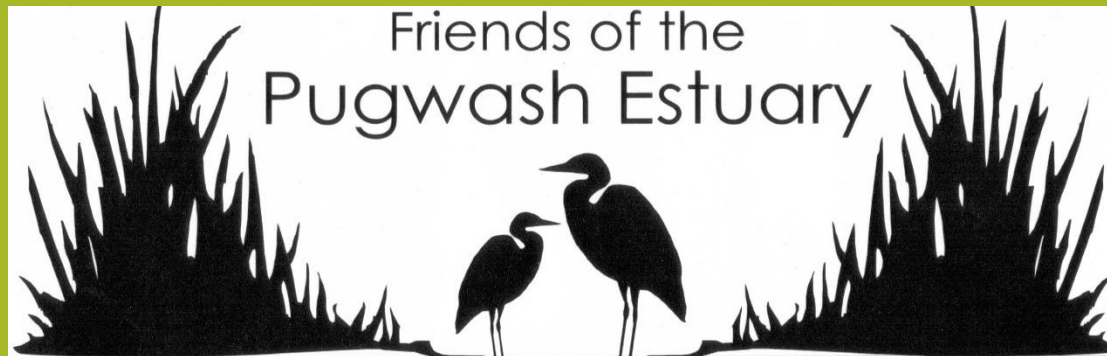


NSYCC SUMMER PROJECTS

Summer Students: Mikayla Sears and Brady Wood
Supervisor: Chris Wild



Pugwash River Estuary



Over the summer the 3 of us worked on a variety of different projects.

Canfield Creek

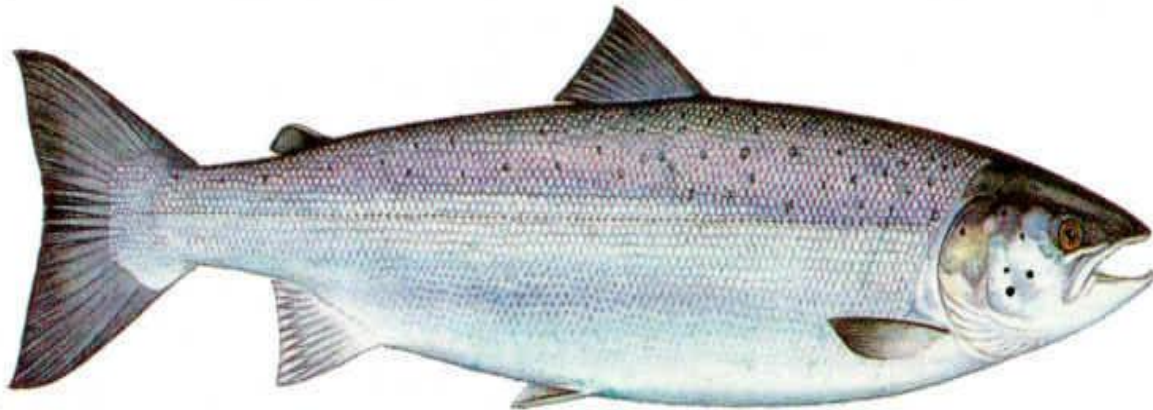
Patton Brook

Big Lake Brook

Williams Lake Fish Ladder

"CAMP" Community Aquatic Monitoring Program

Culvert Remediation



Canfield Creek

- In Canfield Creek our main objective was to:
- narrow and deepen the flow of water, the creek was too wide and shallow.
- Create better fish passage by clearing out debris.
- And to promote the potential productivity of the ecosystem.





- Canfield Creek, Debris Clean up. Main objective of the clean up was to encourage the flow of water to the right bank.



- Canfield Creek, Deflector. A deflector was installed here to divert the flow of water to the left bank.



- Canfield Creek, Clearing Debris. Main Objective at this site was to open a flow because the debris was practically damming the creek as well as create shelter and shade for fish in the undercut bank.



- Canfield Creek, Debris Clean up. The Debris here was hindering the flow of the creek and in order to increase the rate of the flow we removed all blockage on the left bank.



- Canfield Creek, Brush Mat. The purpose of this installation was to catch sediment when a spring or fall freshet occurs. This is a long term experiment.



- Canfield Creek, Since there was no material to use outside the flood zone, we had to go elsewhere to make the bundles for our brush mat installations. .

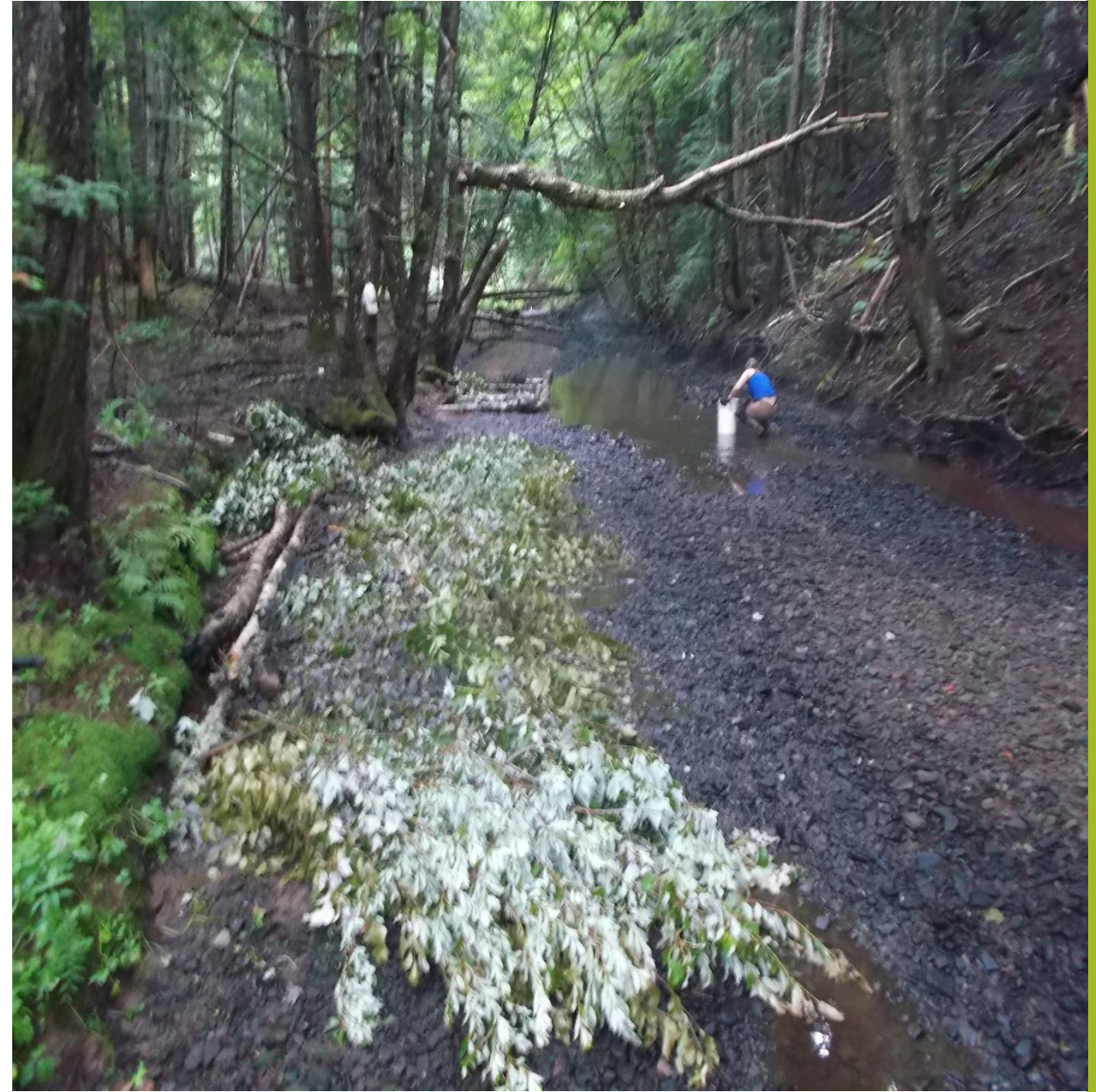


- Canfield Creek, Semi-before pictures of our second deflector. Here we wanted to narrow the brook and have the water flow to the left bank.





Canfield Creek, Second Brush Mat. The purpose of this installation was to catch sediment when a spring or fall freshet occurs. This is a long term experiment





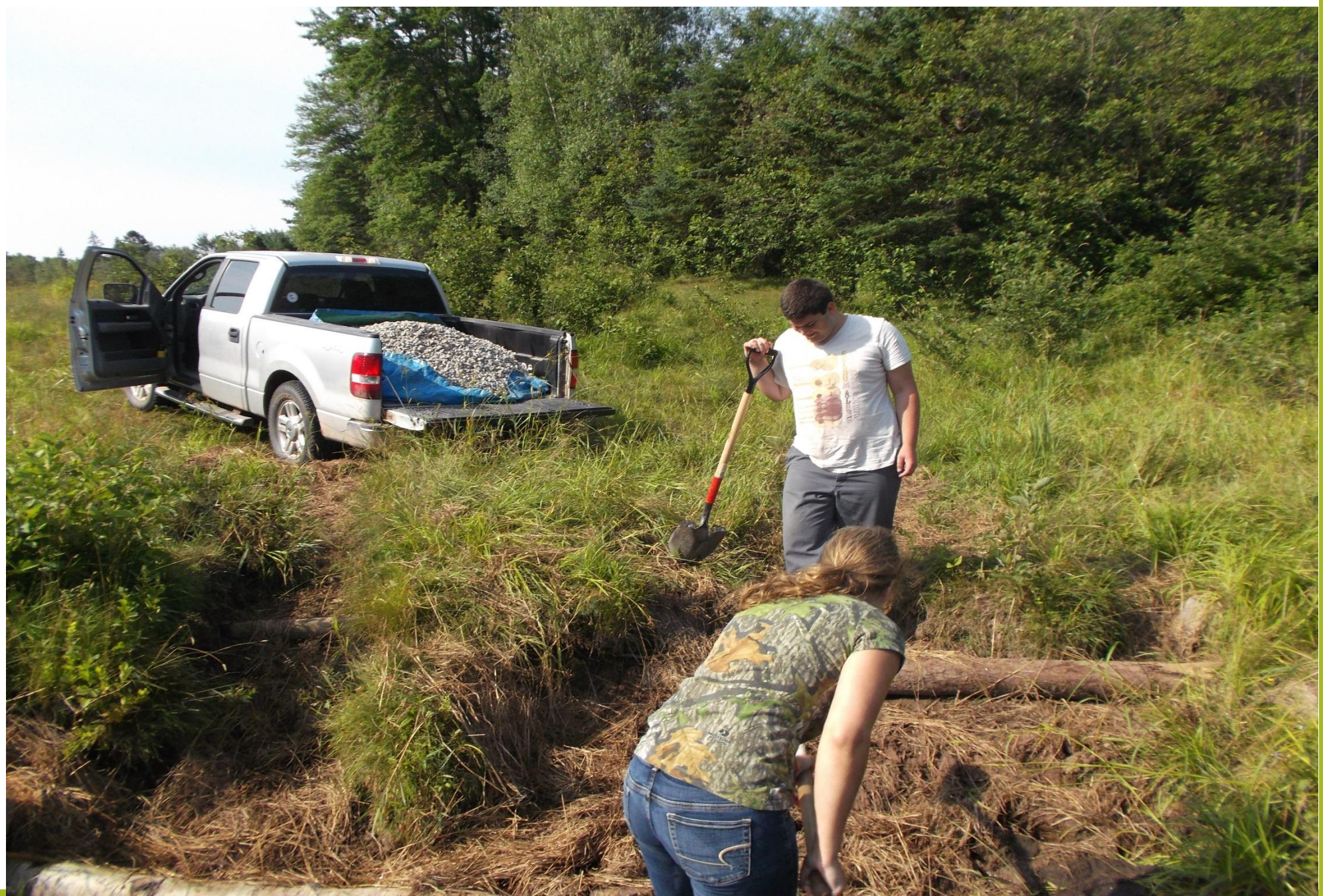
Patton Brook

- In Patton Brook our main objective was to:
- To prevent further erosion by cattle, installing a cattle crossing
- Create better fish passage by clearing out debris and fixing Culvert
- Replacement of a dysfunctional digger log.



- Patton Brook, Cattle Crossing installation, before. The purpose of this installation was to protect the bank from erosion due to heavy use by cattle.

Patton brook





- Patton Brook, Cattle Crossing, completed installation. Here we layered hay on the path and covered it with gravel to reduce stress on the surface of the bank.



- Patton Brook, heavy use from cattle crossing caused serious erosion of this bank which was creating siltation build up.



- Patton Brook, alder trees planted to strengthen bank. Hay, logs, and brush mat installed to reduce the amount of sediment that washes down stream.



- Patton Brook, completed installations, wooden fences constructed to discourage cattle from going down the bank.



• Patton Brook, Digger Log. Replaced a digger log that was not functioning properly.

Big Lake Brook

- In Big Lake Brook our main objective was to:
- To further promote the productivity of the ecosystem.
- Install deflector to narrow the top of the brook



- Big Lake Brook, Deflector. We installed a deflector that was quite large for times where the flow of the brook is high.



- Big Lake Brook, Deflector. Process of filling in the deflector.

Williams Lake Fish Ladder

- In Williams Lake Fish Ladder our main objective was to:
- Help prevent debris blockage from building up at the mouth of the fish ladder.



- Fish Ladder, Two different occasions. Natural debris blockage.



- Fish Ladder, top of Williams Lake brook. Fish ladder cleaned out and working as it should.

- Arrival of the “Trash Rack”



Normally these are installed with a boom truck, however.....



This is after
we realized
that it
wouldn't
fit.....



After
removal
for a refit
the final
result.



"CAMP" Community Aquatic Monitoring Program



- Brick Yard Marina, Sampling Site

Culvert Remediation

Our main objective was to:

- Help prevent debris blockage from building up.
- To remediate known obstacles to fish passage.



- Patton Brook, The bottom of this Culvert had been bent up by ice and was preventing fish from passing through, So in order to fix the problem we bent back the steel and placed large flat rocks on the metal to discourage the ice from making this a barrier for fish.



Culverts





Culvert is completely buried by beavers... We attempted to open the blockage, unfortunately the next day they had the culvert blocked again.

