Backcountry Stream Corps Video Transcript

Title:
Watershed Education Network Presents
Backcountry Stream Corps
Rattlesnake Creek 2021
Missoula, MT

And The Dueling Stadia-sabers
Featuring Markus and Samuel

Video clip of Markus and Samuel sparring with stadia-rods.

Photos of BCSC crew members with personal quotes:
Cooper
Colin
Evan – "Let'ssss goooo."
Samuel – "You know it's baby."
Solan – "Does everyone have their stadia rods?"
Ella – "BCSC is an experience I will never forget. From the high and the lows it was a unique experience that many others don't get to have and I'm thankful I could be a part of it."
Aissa – "Exploring Rattlesnake Creek and its riparian areas alongside a bunch of rad humans, what could be better?"
Stephie – "This was a great chance to collect some valuable data while working with some fantastic people in a beautiful area."
Markus – "There's no better way to connect with nature than collecting data."
Chris – "Aggressively wading and getting to know the creek in that way was my highlight."

Aissa:
Hi everybody. Aissa Wise here, Stream Team coordinator for Watershed Education Network. This summer, 2021, I had the pleasure of being joined by six awesome high schoolers from the Missoula Valley, and my awesome coworker, Stephie Novak, and a few other volunteers that helped run this summer program.

Every day for two weeks we would meet at the Rattlesnake Creek Trailhead within the Lolo National Forest and we would hop on bicycles, we had a couple bike trailers, and we would ride up the trail and go to a different spot in the creek every day. We were exploring the area, looking for beaver signs, and really just having a good time in the creek.

We would spend the majority of the day walking up the stream and we had these really cool PVC pipe stadia rods, or measuring sticks, where we would measure the wood and we would put it in a data sheet and get the Lat/Long and get a couple photos. At the same time, we were looking for pools in the stream. So, any pool that was made by a large

piece of wood or a large woody jam. So, a large woody jam had ten or more pieces of wood and we came across a lot of those as well as a ton of beaver dams as well. So, we would measure those pools and we would measure the wood. And every day we'd go up there and we'd find some really, really neat stuff.

We were doing this all kind of related to fish habitat, and it's also related to the dam removal that happened summer 2020. So, our partners at Trout Unlimited, Christine Brissette and Grant Fleming, they helped us kind of work out these protocols to make it easy to collect information on the wood as well as helping kind of coordinate the logistics with us. So, thanks to those guys. Also want to thank the Lolo National Forest for letting us kind of explore up there and we hope to share all that information with them and everybody else.

All of our lunches for the whole two weeks were donated by either Tagliare or Worden's. Yummy, fulfilling sandwiches that got us through the rest of our day. At the end of our day, or afternoon, we would hop back on our bikes, load up our waders and all of our gear, and we would ride back out and finish up at the Trailhead. Sometimes, Deb Fassnacht, our Executive Director, was there and she had snacks and candy and ice cream to finish off the day.

We learned a lot, had really good weather, only one bear encounter that ended up really good. We had some really good learning experiences. Thanks for all the support and our partnerships and Resource Legacy Fund for making this possible.

Photos and video clip of biking on the trail.
Photos of crew members writing in field journals.

Colin:
Hi, I'm Colin. I was one of the participants for Backcountry Stream Corps. One of my most favorite roles was being in the stream and going around and measuring logs, counting pieces of log jams, exploring the pools, measuring pools, just being able to go out and not "lay hands on" but be a lot more interactive with all the wood.

Stephie:
Hi, I'm Stephie Novak. I'm the Stream Team Assistant here at WEN and I got to work this past summer with a lot of great folks collecting data on large woody debris up in the Rattlesnake. We were measuring logs, kind of like this one next to me here with our nice hand-made stadia rods. And so, with these stadia rods we were measuring three different size classes on wood. We had small logs which were at least ten centimeters but they were less than twenty. We had medium logs that were between twenty and fifty centimeters, and we had large logs that were greater than fifty centimeters wide. And so, if you look at a log like this one, we would measure it like this, just measuring the diameter and we would see that this log is less than fifty centimeters in diameter so it is a medium log. And for some of our other ones, this one is nice and long, but all of our logs had to be greater than one meter in length.

So, we were measuring the logs but we were also measuring every time we came across a pool that was caused by a log or a log jam. So, every time we saw a pool, we would measure how deep the pool was, how long it was and we would measure the depths at the end of it as well just to see how deep the river was kind of surrounding that pool. We were also trying to figure out what kind of a pool that was: if it was a lateral scour, an under scour, side scours.

So, we would just walk up the creek and every time we saw a log greater than a meter, we would just measure the diameter and just keep walking upstream.

Large Woody Debris (LWD): trees, logs, branches, rootwads that have fallen into the water.
Benefits of LWD to streams:

- *Provides streambank stabilization*
- *Diversifies aquatic habitat – important for fish*
- *Traps organic material – food source for macroinvertebrates*

Photos of crew walking upstream measuring LWD with stadia rods.

Bar graphs of Log Sizes by Reach and Log Jams and Pools by reach.

Ella:
Hi, my name's Ella and today I'll be answering questions about BCSC.

What stood out to you about Rattlesnake Creek and how did this compare to your understanding about the place before?

What stood out to me the most was probably the wildlife. Before I only really knew about the fish and maybe like deer and stuff, but I didn't really know about the toads and the snakes or anything like that and also how they interact with the stream. So being in it I really got to see how they interact with it.

Evan:
For me that was the biodiversity and variation of the environment. It would go from pine forests with bears to swamps full of frogs and snakes, you know, sparse scree fields. That variety stood out a lot to me because I used to think of the Rattlesnake as just like being pine forests.

Colin:
I never realized the Rattlesnake could meander and curve so much or that it was home to that much life like the massive amounts of beaver evidence we found.

Photos of wildlife found during a field day: a bear by the trail, a frog, a snake. Video of a snake in the stream eating a fish.
Kids reacting to a snake eating a fish:
"Dude, he's like good man taking out another rookie. That's…holy…oh my god, that's so cool! @naturesmetal, hashtag, hahaha."

Ella:
And then I also learned more about the flow of the stream. Before I didn't really know how far up it went in to the forest or what other runoffs there were but being in it and biking around, I learned a lot more about how the stream works itself and how the large woody debris really affects the flow of it.

Solan:
I would say what stood out to me most, to be honest, about Rattlesnake Creek would be just how sort of braided and interconnected it was up there and how many different little spots there were for different animals to hang out and different plants to grow and just how interconnected it was as a whole was pretty cool to see.

Samuel:
I really did not know how incredibly vast and beautiful and wild the entire wilderness up there was. I mean, I knew that was big but it still blew me away just how incredible it was to be up there and working in the stream, working around and in that ecosystem every single day. That was an amazing experience.

Photos of crew members walking upstream with stadia rods.
Video clip panning upstream to downstream of Rattlesnake Creek. Photos of crew members stretching, biking, identifying aquatic macroinvertebrates from a sample collected from the stream.

What is important for other people to know about this place?

Ella:
It is important for other people to know about why the stream is the way it is and also how they can protect it. When people know about where they are and where they're recreating, they can help keep the place safe and help improve it.

Samuel:
The big thing for me is that we need to maintain the Rattlesnake wilderness at any cost. What I learned up there in my two weeks for WEN is that the Rattlesnake is a truly one-of-a-kind place. There's no other place in the world like it and it's so special, has so much value not just to the current people but also to the indigenous people up there that have so much history with the Rattlesnake wilderness.

Solan:
I think it's important for people to know that there's a lot more to the creek than the parts that most of the people see.

Evan:
for me, one thing that I think is definitely important is that there are bears there (**Colin:** "The bear!") so to just broadly be aware and be prepared for the fact that there are wildlife in the Rattlesnake area.

Photos of crew members with gear on a trail, walking through the stream, informational signs about the Rattlesnake Dam, Removal and Restoration Plan.
Photos of crew members during a field day.

What do you hope comes from the data and information that you collected?

Ella:
I hope the data and information we collected can be used to help protect the environment and fish like any wildlife and any other thing that might be in the stream. And then I hope I can maybe help with future projects that go on in the Rattlesnake.
Samuel:
So, I really hope that our data is used to make Rattlesnake Creek a place not just for the organisms that live in and around Rattlesnake Creek to enjoy but also for the people that come up there every day to witness and enjoy the beauty that is up there.
Through improving the habitats for the fish and the other things that live in the stream, I think we are improving the experience for the people that come in everyday to experience the Rattlesnake wilderness.

Solan:
I hope that from the data, Trout Unlimited is able to sort of find the best fish habitat and places where the beaver dams are. Sort of locate those and be able to protect those spots. And then also, just, if it gets out to the public, it's just cool for people to know how much wildlife is up there and the streams and how many beaver complexes there are and places where fish to hang out. It would be cool if people sort of knew about that.

Evan:
That it can be used by whatever group uses it to benefit the wildlife and the environment of the Rattlesnake and to help people have a better understanding of that wildlife.

Colin:
I hope the data and information we collected can be used to help improve and protect Rattlesnake because it's just such a cool area to have around and such a cool place we get to go to.

Quick video clips of crew members working and having fun.

Guest Speakers:
Jennifer Harrington
Member of the Turtle Mountain Chippewa Tribe of ND. Native American Natural Resources Program Manager and M.S. student, Forestry, University of Montana

> *Ms. Harrington spoke with us on Rattlesnake watershed ecology with an indigenous perspective. Her work with tribes has given her a new perspective on resource management that is far more sustainable than the more recent colonial view of natural resources as a commodity.*

Bob Giordano

Executive Director and Founder of Free Cycles

Bob strives to create a more sustainable way of life for people and our relationships with the Earth. We are thankful to have spent an afternoon learning basic bike maintenance before we set off into the woods!

Heather Upin
Certified Leave No Trace Educator

Heather joined us for an afternoon to teach the 7 steps to "Leave No Trace" (LNT) Principles before we set off into the woods. When she's not sharing her passion of LNT ethics and responsible recreation, she enjoys hiking the trails around Missoula and baking sourdough bread.

Claire Emery
Artist, Naturalist, Educator

Claire spent a morning with the crew sharing her knowledge about nature journaling through observations and discovering the nature around us.

BCSC in Numbers:

58 miles traveled to and from sites
3.6 miles in the creek
60 hours in the field
808 pieces of wood and log jams counted/surveyed
??? water fights: too many to count

Credits

Special thanks to:

Resources Legacy Fund
Trout Unlimited
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Donated Lunches:

Worden's Deli
Tagliare Delicatessen

Guest Speakers:

Jennifer Harrington
Bob Giordano
Heather Upin
Claire Emery

Photos:

Cassie Sevigny
Chris Jadallah
Aissa Wise

This Presentation:
Al Pak

Thank you

Video clip of Samuel emptying a wader full of water.

Watershed Education Network
www.montanawatershed.org

Dedicated to the recently restored Rattlesnake Creek