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OCTOBER MEETING INFORMATION BY GREG DIETL

A DOUBLE BILL OF PRESENTATIONS AT THE OCTOBER MEMBERSHIP MEETING

B oard member Bob Diesch will be giving a presentation on the work he has been doing with the City of New Richmond concerning the operation of the New Richmond dam and fluctuating flows on the Willow River. Board member Kent Johnson will present an update on his stream monitoring work on the Kinni and Pine Creek. Please join us Wednesday, October 7 at Bob Smith's Sports Club, downtown Hudson, 6 PM for dinner, 7 PM for meeting.



Photo by Rob Kolakowski



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Check out all the good things inside this issue of RipRap!



VICE PRESIDENT'S LINES

BY GREG DIETL

Pine Creek Update

Work on Pine Creek wrapped up on Wednesday, September 30. The DNR completed work below the Cty AA bridge to connect with project work from 2007. Upstream work continued, also. There were many fits and starts to work on the project this summer. The DNR crews were spread thin and budget issues emerged in late summer. I will give a full report in the next issue of Rip Rap on the results of this year's work.

Fairmount Minerals

Volunteers from Fairmount again provided significant help on Pine Creek. There actually were significant rain events that washed out seeding and mulching; Fairmount stepped in to reseed and re-mulch.

Banquet Preparations

Banquet preparations are continuing for Thursday, December 3, Tartan Park. We need help with solicitations and donations. Cathy Wurzer, Twin Cities Public Television host of Almanac and Minnesota Public Radio Morning Edition host, will be the guest speaker. Cathy's topic will be her new book, Tales of the Road: Highway 61. This is a must see, don't miss presentation. More information a later edition. Make plans now...

Membership

There are no new members this month. Current chapter membership is 240.

SCOTT'S SCOOP

By Scott Hanson, Editor

s I write this, there is less than a week left in the stream trout season. It seems as though I have been out just a handful of times this year, which may be an all-time low, at least for the past 12 years or so. There were a few years back in the early to mid 1990s that I didn't fish at all. Those are what I call my "lost years", when I was heavy in to golf, and not so interested in fishing. Once I got back in to fishing, I was on the water just about every day of the summer, but didn't pick up my golf clubs for about 5 years or so. Apparently I'm more than a little obsessive, huh? I like to think that I have found an equilibrium in my life, so that I am able to enjoy all of my hobbies, and yet still spend a lot of time with my wife, and now my baby, too. So this summer, I fished a few times, golfed a little bit more than that, played probably too much softball, and spent a lot of time watching Chelsea turn in to a beautiful little girl with a lot of personality. What a terrific summer! And, since I'm married to such a wonderful woman, I'll probably be able to get out on the stream a couple more times, too. I can't wait!

This issue of RipRap is full of great stuff. Check out the articles by Rob Kolakowski and Josh Dumke. Each of these gentlemen has written about problems that can plague our local streams, and what can be done about it. Make sure you read through everything and let me know if you have any concerns or compliments, I'll listen to them all. And swing by Bob Smith's Sports Club on Wednesday, October 7th for the monthly meeting. Both Bob Diesch and Kent Johnson will be speaking. You won't want to miss it. See ya next month!



EXCESS VEGETATION CAN KILL

ack of rain and low water levels have left our waters with an abundance of vegetation and algae that can choke out fish.

Many of you probably have noticed an excess of aquatic plants and algae this year. A friend who lives in St. Paul reports that a nearby lake has so many weeds this year that the ducks can walk across it. He was also on the Lower St. Croix River this week and said the algae bloom is so heavy that it looks like pea soup. I was recently in northeast Wisconsin and observed low water in lakes and rivers along with an abundance of vegetation. When I was on the trout stream last weekend in western Wisconsin I had to deal with a lot of it. In the photo you can see the stream bottom was completely covered. During normal flows the bottom is mostly clean rock.

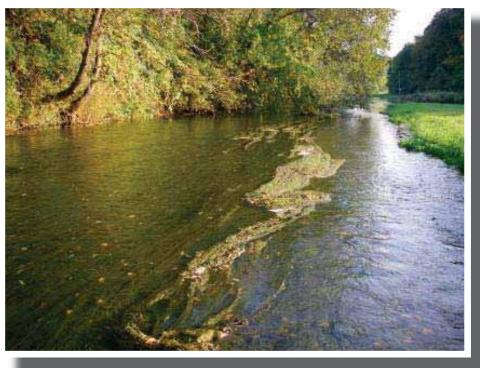
What's going on here? With the lower water levels and clearer water we had this year, sunlight penetrated further and aided plant growth. In streams and rivers the slower water flow gave plants a chance to take hold on the stream bottom where they normally wouldn't. If there are high levels of nutrients in the water to fertilize these plants, they can really flourish. In lakes you'll often see heavy algae bloom.

How does this affect fish? Abundant plant growth is good for fish. Plants produce needed oxygen, cover, and food for insect life which small fish feed on. The problems start when the plant growth is excessive. Plants produce oxygen and release it into the water during the day, but they use the oxygen at night. Which means less for the fish at this time. The lowest oxygen level will be in the early morning and that is most likely when a fish kill will happen. Low water levels usually coincide with warmer water and warmer water holds less oxygen. Oxygen from the air is also mixed into the lake and stream water through wave action. Less wind means less oxygen getting into the water. Slower flows on moving water means less wave action in the riffles and runs and less dissolved oxygen.

What does the future hold? Fast forward into fall and this excess of plant matter will decompose and use up a lot of oxygen. When winter sets in and covers the lakes with ice and snow, little sunlight will pen-

etrate the water and plants will produce little oxygen. There are also no waves to dissolve oxygen into the water. This could spell doom for fish in small shallow lakes and ponds that were choked with vegetation earlier in the year. Fish in streams and rivers will most likely be fine, because most of these bodies of water get replenished with oxygen fairly quickly.

What can we do? We can't go back and make it rain. The damage is already done for this year. What we can do for the future is reduce the amount of nutrients we introduce into the environment through our homes, cabins, yards, farms, and businesses. If you're willing to make changes that will benefit the fish we pursue, a search on the internet will get you more detailed information than you can deal with.



FLY TYING CORNER: THE STIMULATOR

For example, the Elk Hair Caddis is probably the most popular different to look at, so I have started to tie one of those on during caddis hatches, with good success. Maybe that's something to think about for your own fishing adventures?

Although there are some very large stoneflies in our local waters, they aren't very widely spread, so big Stimulators aren't that important to have. I do always carry a few, though, because I like to use them as indicators in a two fly rig. They are big and easy to see, they float extremely well, and they are just buggy enough that I get quite a few strikes on them, no matter what other actual bugs are flying around. I like big Stimulators in several color schemes, but especially yellow abdomen/orange thorax, and lime green abdomen/orange thorax. These two color schemes are extrememly easy to see on the water in pretty much any daylight condition. They pretty much look like furry strike indicators, and sometimes trout love them. When I am tying them for use as indicators, I tie them in size 6 or 8, although some times a smaller one might not spook as many fish, so it wouldn't be a bad idea to have some 10s or 12 on hand, too.

FLY TYING CORNER: STIMULATOR

The Stimulator

Hook: Tiemco 200R, size 6-14

Thread: 8/0 in Red or Orange

Tail: Elk Hair, Natural or Bleached

Ribbing: Small Copper wire

Abdomen: Yellow, Green, Orange, or Tan dry fly dubbing

Rear Hackle: Brown or ginger dry fly hackle, one hook size smaller than hook

Wing: Elk Hair, Natural or bleached

Front Hackle: Grizzly dry fly hackle, one hook size smaller than hook

Thorax: Orange, Brown, or Black Hareline or other nymph dubbing



ADVENTURES CLOSE TO HOME

n September 4th, 2009, I stood in the 55 degree water of a trout stream in eastern St. Croix County. I had just hooked, fought and released a 13 ¹/₂ inch brook trout already gorgeous with male spawning colors. This was the largest brook trout I had ever taken in Wisconsin and the highlight of my "staycation".

Yes I needed time off from my job but had made no plans to travel to an exotic Mexican resort where beautiful people sip Coronas nor make my way to western mountain states to fish big, brawling, blue ribbon trout streams. One vacation in past years had taken me deep into the Collegiate Wilderness Area of central Colorado where the brook trout I caught were invaders out-competing native strains of cutthroat and bag limits were designed to annihilate the invaders. We ate those fish. Another recent vacation to Montana's Bob Marshall Wilderness Complex and the Blackfoot River was eerily synchronized to the worst drought of modern times, resulting in 50,000 acre forest fires, rivers of warm water and dozens of stream closures. But on this little vacation (a week and two weekends) my goal was to sleep in my own bed each night, explore the trout streams of western Wisconsin during the day and when fishing was done for the evening, find excellent dining and social opportunities to complete my day.

In one regard I was lucky. My home on St. Paul's east side is 22 miles from River Falls, ground zero in my heart for trout fishing. It took a few days to free myself from the complexity of my life and learn how to goof off again; then I fished for seven days straight. I caught both brook and brown trout in various beats of the Kinnickinnic, the Rush and several smaller brook trout streams, all within an hour of my home. Some fish were taken in deep runs containing lunker structures installed by the DNR (and maybe Kiaptuwish TU), which gave these wild fish a place to hide, survive and reach a memorable size. Others were taken in rivers that flow gin clear because many before me have fought to maintain the integrity of watersheds and keep the soil on the land instead of in the river.

Even though it is months from our Pilgrim holiday when I write this, I give thanks for the blessing to fish for wild trout in cold, clear water and enhanced habitat that makes it possible to catch a 13 $\frac{1}{2}$ inch brook trout.



Brook trout photo courtesy of wyfly.com



CHANNEL MORPHOLOGY CHANGE AND BIOTIC RESPONSE TO A SELECTIVE WOOD REMOV-AL TECHNIQUE IN A SAND-LADEN LAKE SUPERIOR TRIBUTARY: A **SUMMARY OF RESULTS**

By Josh Dumke

any northern Wisconsin trout stream headwaters have large sand bed loads due to historic logging practices and decades of beaver dams and small woody debris accumulations. Copious sand deposition can bury natural gravels and large woody cover until few areas of rocky stream bottom or living space for large fish are exposed. Clean gravel and cobble substrates are critical for trout and salmon reproduction and to support abundant insect life to feed stream fishes. Headwater tributaries of larger rivers provide greater egg to juvenile survival due to less severe flooding impacts, and are important nursery areas for young fish to grow and later replenish downstream river and Lake Superior populations. However, excessive sand in headwater streams prevents successful reproduction and can diminish the recruitment capacity for the entire watershed; lowering the stream carrying capacity and offering less fish for future generations to catch. Wisconsin Department of Natural Resources (WDNR) staff began a management strategy of selective wood debris removals from sections of headwater trout streams with the specific goal of decreasing stored sand and increasing exposed gravel for trout and salmon spawning habitat. The results presented here are a master's thesis summary of the physical stream change, as well as the fish and invertebrate response to the WDNR selective wood removal method over one year on the Little Sioux River near Bayfield, WI. A treatment station received the WDNR selective wood removal treatment while an upstream reference station was measured equally, but did not receive any manipulations. Differences between treatment and reference station measures over time display effects induced by the selective wood removal process. While many results were acquired during this research, those which are most pertinent to sport fishing will be discussed here.

By 12 months post-removal the amount of exposed rock (sum of gravel, cobble, and boulder) greatly increased and sand content reduced and in the treatment station, while the reference station measures remained relatively unchanged (Figure 1). The stream bottom substrate, among other changes, are visible in the photos of the same location in the treated reach during pre- and 12 month post-removal sampling (Figure 2). The number of fall spawning trout and salmon redds (nests in the riverbed) were 3 to 5 times greater in the treatment station following the selective wood removals when compared to the reference station, which means reproducing adults were immediately utilizing newly exposed gravels. The effects on fish species indicated a reduction in slimy sculpin abundances while total trout and salmon densities increased slightly over time in both stations. Importantly, trout and salmon age class distributions suggest there was an increase in young-of-the-year (YOY), or "fry" densities in the treatment station at 12 months post-removal. Densities of invertebrate samples were cor-



related to the percent of rocky stream bottom substrates, where samples taken in sand supported lower invertebrate populations as total density, as well as combined densities of mayfly, stonefly, and caddisfly (called EPT taxa) than samples from increasingly greater rock content. The invertebrate correlations suggest that greater rock exposure should increase all insect populations. Estimated population sizes of invertebrate groups as a function of rocky stream bottom area show a striking increase in insect abundance following the selective wood removal in the treatment station (Figure 1).

In summary, the measured physical changes created a beneficial response for recreational sport fishing species. The selective wood removals caused the stream to mobilize stored sand and expose underlying rocky substrates. The increase in available rocky stream bottom increased trout and salmon spawning activity and potential invertebrate abundances. Slimy sculpins were reduced due to the treatment (which can be prey for large trout), but were still more abundant than combined salmonid populations. Slimy sculpins are not a sport fish and eat many of the same invertebrates which stream dwelling trout and salmon prey upon, so reducing slimy sculpin abundances may indirectly increase the available forage for trout and salmon. The increased density of YOY age salmonids is correlated to the increase in spawning activity of the preceding year, which shows a direct positive trout and salmon response to the WDNR selective wood removal method. These results indicate that decreasing sand content and increasing rocky substrates in headwater stream reaches may improve annual recruitment of trout and salmon species, and that the selective wood removal method is an effective way of creating the desired physical stream change. While these changes were monitored over one year, long-term evaluation is needed to determine lasting physical and biotic effects. For instance, I noticed a slight decrease in treatment station age-1+ (juvenile through adult) trout densities after 12 months post-removal, likely due to removing wood debris and overhead cover (Figure 1), but it is unclear if stream conditions will continue to evolve and provide habitat for larger fish in the future. Therefore, the WDNR plans to continue monitoring the Little Sioux River changes for years to come to evaluate lasting effects. Anyone with questions or wishing to reproduce the content or figures provided in this article must contact Josh Dumke (dumk0012@d.umn.edu).



Figure 1. Physical changes in stream condition are visible from pre (left) and 12 months post-removal (right) photos of the same treatment station location.





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CHECK US OUT ON THE WEB:

WWW.LAMBCOM.NET/KIAPTUWISH/



DON'T MISS THE OCTOBER MEETING!!!

DUELING SPEAKERS!

Both Bob Diesch & Kent Johnson will be speaking. Wednesday October 7th, 2009 at Bob Smith's Sports Club Dinner starts at 6PM Meeting begins at 7PM See you there!

Deadline to make submissions for the November issue is Wednesday, October 21st. Have a great month!

