



LIGHT LINES

WINTER 2000

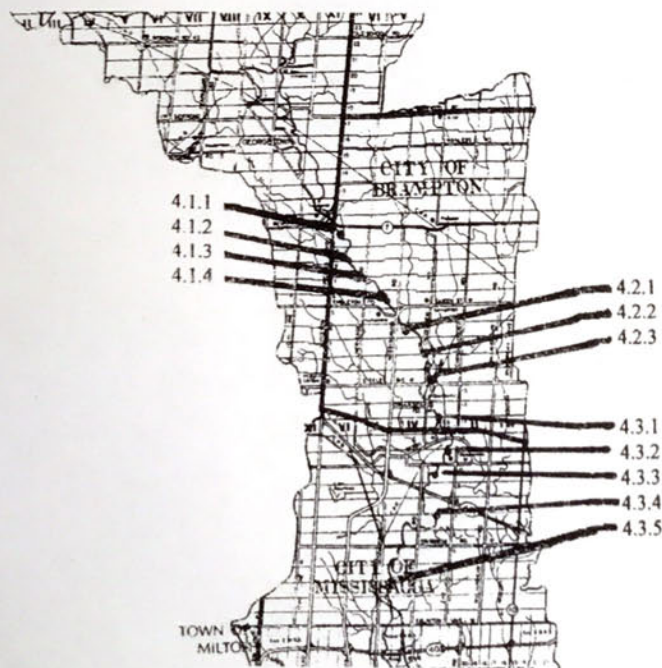
Volume 10, Number 1

This Year's Conservation Projects

By John Kendell

Personally, I thought 1999 would be a tough year to beat. CRAA planted close to 30,000 trees and completed so many stream rehabilitation works, I almost lost count (see Vince D'Elia's article on 1999 Rehabilitation).

Yes, we're going to outdo ourselves again. With over \$50,000 in funding approved already, we are well on our way to doubling last year's reforestation work. In addition, we will far surpass our stream rehabilitation work with a boulder placement, addition of woody debris and creation of better holding water in Erindale Park.



Reforestation will again be our leading project with a projected 60,000 trees and stakes to be planted this year. The entire planting will be done between Norval and Port Credit over a 10 week period in Spring by CRAA employees and co-op students. Up to 90% of the open stretches of river

bank will be planted by CRAA this year! The map at left shows a detail of the lower river and all the properties to be planted. This has not been an easy task. Receiving large grants is a lot of work in itself, often requiring 50 page reports in order to apply. To get the money you must also have the land owners' permission. This has meant years of knocking on doors and title searches at the Land Registry Office to locate all the private land owners and seek their permission. Fortunately, most land owners are very willing to have free trees planted on their property.

CRAA will also conduct a boulder placement in Erindale Park this summer, pending final approval from the CVC and DFO. The boulder placement will be coordinated with addition of woody cover in some sections to provide overhead cover to fish, protect banks from erosion and hopefully improve fishing opportunities.



Fish Ladder operations will continue as they have for the past 8 years now. CRAA volunteers will operate the Streetsville Ladder in cooperation with the MNR to pass steelhead, tag, measure and collect information and eggs for the hatchery. Lifts will begin as soon as the ice is off the river and the water warms up, usually late March.



Credit River Anglers Association

LIGHT LINES

Contributions are welcome from
all members and non-members alike.

Send your articles of interest,
messages, or suggestions to:

Light Lines Editor
Credit River Anglers Association
128 Queen Street South
P.O. Box 42093
Mississauga, Ontario L5M 1K8

E-mail: craa97@yahoo.com
Website: www.craa.on.ca

CRAA 24 hr Hotline
(905) 814-5794

Contributors

John Kendell, Vince D'Elia
and Mike Brady

CRAA Executive

President ... John Kendell
Vice President ... Mike Wiedemann
Treasurers ... Jack Gibbons, Jim Kendell
Secretary ... Carlo Mendoza
Membership ... Jürgen Richter
Volunteer Coordinator ... Aaron Bodiam
Fish Rearing ... Mike Tost

Commercial Advertising Rates

1/16 page-\$20.00, 1/8 page-\$30.00
1/4 page-\$50.00, 1/2 page-\$80.00

Newsletter production: 400

CONSERVATION PROJECTS, *cont'd.*

The Fish Hatchery will be in full swing with plans for another 250,000 steelhead fry to be hatched and raised for stocking into the middle/upper reaches of the Credit River. Mike Tost will need some help so if you live near Georgetown and would like to help leave a message on the hotline 905-814-5794.

We have also requested permission from the MNR to transfer adult steelhead past Norval and into Silver and Black Creeks so that they may spawn on their own. CRAA completed adult transfers in 1995 and 1996 with great success. Between 1997 and 1999 we were not allowed to transfer by the MNR due to the fisheries management plan (which has now been changed). Under the new management plan steelhead are allowed into Silver and Black Creeks, and once a barrier is built near Inglewood, they will have free access to the main river too.

Other projects for the year include addition of some woody debris at degraded sites to improve habitat. We have also requested permission to make changes to the Glen Williams section of the river that was straightened 30 years ago by the MNR. We will also be operating the Boat Launch and Salmon Hunt weigh station again this year. Long-time volunteer and member Mike Brady will be managing the Launch Ramps this summer.

CRAA will continue to collect temperature data from the river and tributaries to identify problem areas and plan rehabilitation. Electro-fishing data collection will also be an important aspect of our continued work. Another big issue is storm water management which will undoubtedly become the next BIG issue to rectify for CRAA in the years to come. As urban areas grow, the river is under increasing pressure, suffering loss of ground water, more frequent and severe flooding and major silting problems related to development.

As is always the case, we require more members to take on projects to help out. With the large number of projects CRAA has undertaken we always need help from members to assist in managing different programs. If you can spare some time to manage a planted site, the fish ladder, or stream rehabilitation works please let us know on the hotline.

Here's to another safe and great year!

Year 2000 CRAA Volunteer Days

March 18 STREETSVILLE FISH LADDER OPERATION

Operation will be at 5:00 PM on weekdays and 10:00 AM and 5:00 PM on weekends. Call the hotline in advance to ensure we are lifting. The fish ladder operation will continue to April 15 depending on weather. The start date may be delayed if the river remains frozen.

April 22 9:00 AM EARTH DAY EVENT – STEELES AVENUE PROPERTY

Meet at the Scout Meeting building on the South side of Steeles Avenue at Creditview Road, just West of the River. CRAA will coordinate a tree planting with local cub and scout groups, as well as local school groups. Our target will be to plant 4,000 trees with all the volunteers. Bring your kids and your family and make a day of it.

May 13 RIVERFEST 2000 (in Norval)

CRAA will have a hatchery display, float and fly fishing demonstrations and educational information about the importance of the river.

May 28 9:00 AM TREE PLANTING – STREETSVILLE PARK

Meet at the Parking lot beside Vic Johnson Arena, just South of Bristol Road in Streetsville. CRAA will coordinate a tree planting with local cub and scout groups, as well as local school groups. Our target will be to plant 2,500 trees with all the volunteers. Bring your kids and your family and make a day of it.

June 24 STEELHEAD FRY RELEASE DAY

We need 20 volunteers to help release 250,000 steelhead fry. There are over 35 km of river and we would like to release the fry into the entire section to allow maximum survival. Some crews will release fish from canoes while others will release them by walking the river. Meet at CRAA's hatchery in Glen Williams at 8:30 AM. Bring waders.

July 8 URBAN FISHING DAY

Volunteers will help youngsters catch fish at Lake Aquitaine in Meadowvale. Meet at the Lake Aquitaine dock at 8:30 am. Bring your kids to fish.

April-May TREE PLANTING HELP

We have volunteer opportunities every day of the week from 9 to 5, Monday to Friday to help plant trees along the river. Call us to arrange a meeting time.

Jan.-June CRAA HATCHERY

Volunteers are needed to assist the hatchery manager in picking dead eggs, feeding fish and making sure everything runs smoothly. CRAA will be raising both Atlantic salmon and steelhead over the first 6 months of the year.

Call the CRAA hotline for more information (905) 814-5794

1999 Rehabilitation Projects

By Vince D'Elia

Prior to the start of the 1999 season a few members of CRAA had dedicated a significant amount of time and effort towards the development of the second phase of the "Credit River Rehabilitation Program." Many funding applications were completed so that CRAA could continue our quest to rehabilitate the Credit River watershed and the fishery it supports. The rehabilitation projects and strategies outlined in the "Credit River Rehabilitation Program" were developed with the intentions of obtaining CRAA's long-term goal of improving the environmental health of the Credit River and its associated fishery, so that it may support healthy self sustaining populations of wild trout and salmon. Many of the rehabilitation projects within the program have been designed to incorporate the importance of large trees and densely forested riparian zones along a cold water river's edge. This will have a profound impact on the river's water temperature by reducing the impact of the sun's powerful rays upon the water, and the thermal heating from air that is warmed over fields.

Over the course of the year, CRAA was rewarded with funding from the Ministry of the Environment (through a program recognized as "Eco-Action 2000") (\$40,000), CFIP (\$9,600), MNR Fish and Wildlife Funding (\$10,000), the Toronto Star Salmon Hunt (\$10,000) and money won by Mayor McCallion in the Toronto Star Salmon Hunt (\$5,000). With this solid financial foundation CRAA completed the second phase of the CRAA rehabilitation strategy. To complete the year's projects students were hired to form a full-time/seasonal work crew. This work crew consisted of the following members: Aaron Bodiam, Mike Brady, Vince D'Elia, Jennifer Kultgen, Jason Hutton, Matt Richards, and 3 co-op students (throughout the spring and fall. In addition to establishing a work crew, large numbers of trees (tree species native to the Credit River watershed) were ordered from various nurseries, upwards of 15,000 bare-root trees. In order to complete the process, over 15 private landowners were contacted to allow access to their properties to allow CRAA

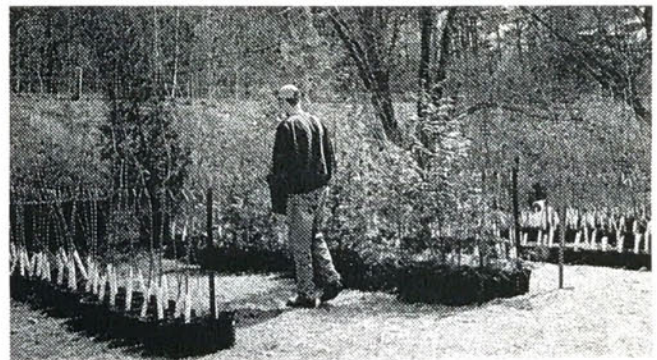
to complete out rehabilitation work. The second phase of the CRAA "Credit River Rehabilitation Program," concentrated on rehabilitating the section of the Credit River watershed situated between the Village of Inglewood (located in the Town of Caledon) and the Village of Norval (located in the Town of Halton Hills). The CRAA rehabilitation work crew began work in late February, and continued right through until the end of December.

Reforestation of the River Banks Between Inglewood and Terra Cotta

CRAA students used a canoe to plant trees at remote sites along this 10 km stretch of river. Several thousand bare root trees and willow stakes were planted in every open stretch in this section. Although there are many well-forested sections in the stretch of river, there were many open areas until now!

Rehabilitation of Sheridan Nurseries Property

Sheridan Nurseries not only allowed CRAA to plant their property, they gave us several acres to use for our tree nursery. At the peak of the season we had over 6,000 trees growing in our nursery. Over 2,000 trees and stakes were planted along the river on this property filling every open section with many rows of young trees. Based on CRAA's temperature studies this property is the first section of the middle river to experience significant increases in water temperature.



Mike Brady potting cedars at CRAA's nursery at Sheridan Nurseries Property in 1999.

Rehabilitation of the Ted Hancock Property

Ted's property is one of the most degraded in the middle river, with virtually no riparian vegetation to provide shade and prevent thermal heating. We planted over 3,000 trees and stakes on this 700 m stretch of river, as well as bio-engineered a seriously eroding bank and incorporated woody debris into the channel to provide cover and habitat for fish.

Rehabilitation of Bob Wolf's Property

CRAA member Bob Wolf had a long stretch of riverbank on his property that was suffering from severe erosion due to flooding and lack of vegetation. CRAA bio-engineered and planted the eroding bank and all other open sections of the property with over 2,500 trees and stakes. Mike Brady and I suffered some bad poison ivy at the site, but everyone managed to complete the work with great success. By June the previously muddy bank was covered with small trees and shrubs. We are anxious to see how well the bank holds up to flood waters now that it has roots holding the soil in place. We also converted Bob's lowest pond to bottom draw over the summer to release the cold bottom water back to the river. The result was a 15° C drop in outflow temperature.

Georgetown Valley

Much of the valley between the Papermill Dam and Norval is well-forested, however, closer to Norval there are significant open areas on the property of Upper Canada College. Using a canoe again, our crew accessed the degraded sites and planted over 2,000 trees and stakes to initiate the growth of the riparian forest.

Rehabilitation of the Dave Carter Property

The furthest property down river completed in the 1999 work was just below Norval. Dave's property is mostly field with some mature scattered willows along the river. However there were signifi-

cant gaps in the trees leaving long stretches of river bank exposed to erosion. High water temperatures and lack of woody debris are also serious limiting factors to the success of wild salmon and trout in this reach. Our crew planted over 1500 willow stakes and 1500 bare root trees on the property to fill all the forest gaps. The property was also the site of a major CRAA volunteer day with our group placing two very large cedar revetments for woody debris. The picture below shows volunteers placing a 15 m cedar along an eroding bank.



Rehabilitation of the Jack Donnelly Property

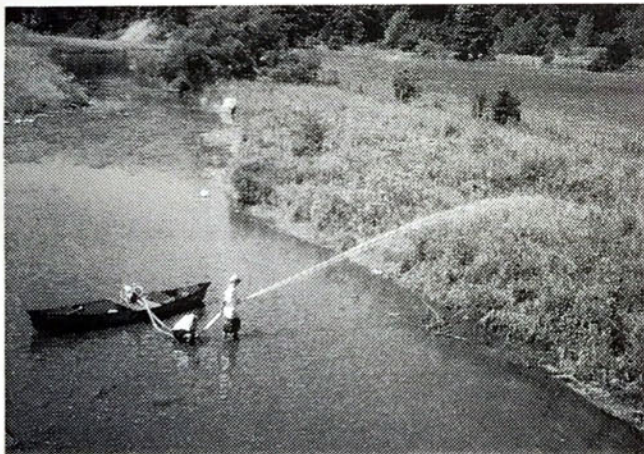
Prior to our rehabilitation efforts on this property this parcel of land was characterized as being manicured to the waters edge, with no forest cover along the riparian zone. Despite the previous condition of this property, the creek was home to large numbers of speckled trout. Our goal for this property was to maintain and improve the health of this trout population, in addition to providing additional sources of cover, food, and shelter. Jack Donnelly, the owner of this property has been a very helpful partner in rehabilitating this tributary of the Credit River. He has granted us unlimited access to the property, allowed us to organize a volunteer day on his property, and provided our planted trees with a sufficient buffer strip (a strip of about 8 meters from the water's edge which he no longer trims, and has allowed to grow naturally).

1999 REHABILITATION PROJECTS, *cont'd.*

The CRAA rehabilitation work crew placed more than 1,000 willow stakes along the banks of this section and planted approximately 500 bare root trees, 500 potted trees and 500 transplanted cedar trees. Our planting efforts have created a continuous natural corridor between fragmented sections of forest along the riparian zone. We also placed seven cedar revetments throughout this section of river for additional habitat and cover. Again, much of the work at this site was completed by CRAA volunteers on the planned day in May of 1999.

Other Work

Our crew planted many other small sites, including McClure Property – Huttonville Creek, Morris Property – Levi's Creek, 2 other sites on Levi's Creek, Erindale Park, Black Creek in 2 other locations, Preston's Creek, and many small sections of the main river between Inglewood and Norval. In addition to planting and adding woody debris, the crew maintained all our planted sites by fertilizing, watering and keeping the competing grass down. The photo below shows Matt Richards and me watering trees using the canoe and the club's water pump.



Working With Co-op Students

Thanks to the cooperation and assistance from a local high school and Sir Sanford Fleming College, we have been able to create opportunities for aspiring co-op students to participate and learn from our conservation work, while CRAA has gained the much-needed assistance. Local high

schools have provided us with students who worked with us four days a week in both Spring and Fall. The assistance of co-op students has been an important part of completing our conservation work.

Garbage Clean-Ups

Unfortunately, a common scenario that is associated with the presence of park users and anglers is a horrific amount of garbage scattered throughout the river and its riparian zones. We dedicate a tremendous amount of time and effort towards removing the garbage scattered throughout the Credit River watershed. With each patrol in various sections of the river, we removed several bags of garbage and disposed of it properly. In addition to picking up the garbage, we have placed and monitored garbage cans in areas lacking sanitary service in the hopes of educating people and reducing the amount of garbage misplaced throughout the watershed.

Conclusion

Thanks to the funding provided through programs like "Eco-Action 2000," and the in-kind donations provided from other partners, rehabilitating the Credit River watershed has become a full-time job for the Credit River Anglers Association. The dedicated CRAA work crew members are grateful for this employment opportunity, and are determined to achieve CRAA's long-term goal of restoring the natural and historical integrity of the Credit River watershed making it one of the premier cold water stream ecosystems in Southern Ontario. The conservation efforts put forth by CRAA during the 1999 season have been a tremendous success. The number of conservation projects that have been completed, along with the number of sites that have been rehabilitated during the 1999 season has far surpassed those numbers of previous years. Although harsh winter conditions have set in and CRAA field work has come to a halt, CRAA work efforts remain ongoing. The process of preparing for the upcoming season is a tedious and time consuming task and dedicated CRAA members are putting forth a great deal of their own time and effort to make the coming years work a reality.

Habitat Restoration on Mullet Creek

By John Kendell

The City of Mississauga has initiated a plan to complete habitat restoration work on Mullet Creek in an effort to naturalize parts of the channel that were lined with cement in the 1970s. The city held two public meetings last Fall with a good resident turnout at the second to discuss the issue and take comments from the public.

On behalf of CRAA I requested that the planned storm water management facility be enlarged to a capacity of 250,000 M2 with a modified bottom draw to release an average of 0.5 Cubic metres/second (cms) of water to the river below the pond. This would increase base flow in Mullet Creek by 70% in summer and virtually eliminate

flooding and siltation. Since there is some natural reproduction in lower Mullet Creek I hope this change will improve salmonid habitat.

At the meeting I also learned that Mullet Creek has a flooding by-pass channel that dumps extra runoff directly into the Credit River above Britannia Road to prevent flooding in downtown Streetsville. Flow analysis by the consultant showed peak by-pass flows of up to 20 cms. That is 6 times the base flow of the Credit River in summer! That's a lot of water! Hopefully a large storm water pond will significantly reduce flooding, improve base flows, significantly decrease silt and lower water temperatures.

Hatchery Report: Winter-Spring '99

By Mike Tost

The past winter and spring were busy seasons for our hatchery crew. The Atlantic salmon rearing was difficult with a poor hatch rate after eye-up. This problem was experienced by other hatcheries, so we think it had more to do with the eggs themselves. The steelhead rearing went much smoother, but vandalism put a serious dent into our production. Fortunately the MNR had some

spare steelhead eggs that allowed us to come closer to our stocking goal.

We must have more volunteers to assist at the hatchery this winter and spring. If you can spare a little time in the evening once and a while please call CRAA at 905-814-5794. Many hands make light work.

Burnhamthorpe Road Bridge Work

By John Kendell

The City of Mississauga is planning on changing the channel of the Credit River under the Burnhamthorpe Bridge to prevent structural damage to the bridge from erosion at the footing of the bridge pylon. The City held two public meetings late last Fall to advise the public. Obviously not too many people check the public notices since just a handful of residents appeared. I was informed directly and was able to comment on the planned works on behalf of the club.

The preferred plans will move the river channel to the West of the existing channel by roughly 15 m. The fisheries biologist who assisted in the design of the new channel has incorporated woody debris, boulders and meanders to create fish cover and create two to three deep pools. This will keep the channel stable while keeping a natural look, unlike the ugly and unnecessary armour stone which was once so popular. The work is planned for July/August of this year.

Expect a Drop in Steelhead Numbers

By John Kendell

Over the next few years steelheading for wild fish is going to be a little tougher thanks to several years of hot, dry drought conditions in Southern Ontario. Last summer was so bad spring fed tributaries in Owen Sound actually dried up killing brook trout and young steelhead. The summers of 1997, '98 and '99 have been so hot and dry that juvenile steelhead counts are way down in many rivers. One of the few rivers that has been doing well is the Credit, thanks to our stocking and rehabilitation work. However, increases in the Credit's steelhead production are the result of access and stocking. The Credit has suffered from the droughts as much as other rivers in the area.

Last Fall there was a noticeable decline in the number of small silver (2 lb) steelies returning to

summers. As steelheaders we should always hope for cold, wet summers, but they don't occur very often in Southern Ontario. With global warming the threat to our fishery is now even greater. This is why planting trees, eliminating silt and flooding are keys to protecting our fishery for the future. Healthy rivers like the Pine and Wilmot see very little fluctuation in steelhead populations even in bad years. Other rivers that are susceptible to drought and heat, like 95% of our favorite rivers can have significant declines in wild steelhead output.

Unfortunately stocking is not the answer either. Stocking is a tool for fisheries managers that has been often abused by many as the fix-all of fishing. Stocking fish into rivers with depressed

stocks (due to droughts) can have serious negative implications including increased mortality and stress on wild fish, as well as disease and damage to genetic integrity. Stocking can be good in places where there are no wild fish (like the stocking we do in the middle Credit), but this can give false hope. Many American rivers, like some in Pennsylvania are totally dependent on hatchery fish. Yes, they can produce big returns and good numbers for anglers, but the quality of the fish is often low. I

would gladly take 5 wild Nottawasaga steelhead over 50 cookie cutter hatchery fish in Pennsylvania (not to pick on the state, their rivers are not fortunate to have large sand and gravel deposits to feed them with ample spring water like many rivers do).

Habitat enhancement is the key! Stock a fish and you get a fish back, plant a tree and have dividends of fish forever.



many rivers such as the Nottawasaga, Bighead and others east of Toronto. There were excellent numbers of 5 lb steelies (1996 year class) and many large fish from the 1994 and 1992 years' classes. Unfortunately, three bad years in a row will make an obvious dent in our fishing success.

So, what can you do to improve the situation? The only thing to be done is improve habitat in all our streams and rivers to reduce the impact of hot