



**Wheatley River Improvement Group**

**August, 2012**

## They're Back!

After a year off to recover from a grueling 2010 race season, the speedy Wheatley River racing ducks are back. There will be some new racers this year and the location will move up to Rackham's Pond. It's going to be an exciting race and lots of fun for everyone.

For a \$5 ticket, you get a one in 300 chance of winning one of three fantastic cash prizes: \$200 for a first place finish, \$100 for second, and \$50 for third place, and the priceless bragging rights that come with your duck placing in the winning circle. Or for only \$20, you can purchase your own racing stable of 5 ducks. You don't even have to be there to win, although we really hope you will be.

Plus, if the Gold Duck and Saucer Race isn't enough excitement for you, the world renowned (or at least well renowned in Wheatley River) Rackham's Lane Pipe and Drum Corps will lead the official march of the ducks. So come out for a few hours of fun, food and frolic, starting at 4:00pm, September 1<sup>st</sup> at Wheatley River Community Hall and up the road by Rackham's Pond.

**Get your duck tickets at Gallant's Food Market in Rustico or call us at 569-9115.**

**Saturday, Sept 1st, 2012**

## A Day On Our River Festival

**GOLD DUCK & SAUCER RACE!**

**WRIG'S ADOPT YOUR RACING DUCK!**  
 Adopt your WRIG Racing Duck for The Rackham's Pond  
 2012 GOLD DUCK & SAUCER RACE  
 Saturday, September 1, 2012 at 4:00pm

Duck Tickets available from  
 Gallant's Food Market in Rustico,  
 WRIG members  
 or by Calling Norman Dewar  
 at 569-9115

**Residents, Farmers,  
 Fishermen & Cottagers  
 Everyone is invited**

**We all  
 share the water**

Wheatley River Community Hall  
 13 Rackham's Lane,  
 Wheatley River, PEI

WRIG  
 www.wheatleyriver.ca

WRIG invites you to our afternoon festival to celebrate our beautiful river and our commitment to watershed renewal

Your 2012 River Day will include:

- Watershed/environmental displays & demonstrations
- Children's activities
- A Corn & Mussel Boil and Potato Bake
- The "Gold Duck & Saucer Race" at Rackham's Pond

**EVERYONE WELCOME!**

Please keep a look out for our Poster and Newsletter for more details

Proceeds from this event go to the local environmental improvement initiatives of the Wheatley River Improvement Group

For more information, please contact  
 WRIG's Coordinator,  
 Norman Dewar  
 Norman@wheatleyriver.ca  
 or visit our website  
 www.wheatleyriver.ca

## State of the River

*A regular feature reporting on the health of our river.*

### Monitoring the Wheatley River Estuary

The section of the Wheatley River watershed most affected by anoxic events and most visible to the general public is the Wheatley River estuary. An estuary is a semi enclosed body of water where fresh water from rivers and streams mingles with salt water from the ocean. The estuary traps nutrients and sediment carried from the land by rivers and from the ocean by tides. Estuaries are characterized by a constant mixing of

these nutrients with the rise and fall of each tide. These conditions create an enormous amount of plant and animal life and are among the most productive ecosystems on earth. A properly functioning estuary provides us with a valuable source of food, recreational possibilities and simply intrinsic beauty. When the ecological balance in an estuary is thrown off, things like anoxic events can occur with the resulting loss



**Estuary looking north to Grand Père Point**

of marine and plant life and the less than pleasant odors caused by decomposing life forms.

Anoxic events in the Wheatley River are mostly the result of the rapid growth of algae commonly referred to as sea lettuce. The sea lettuce grows very rapidly and then begins to die and decompose, releasing the “rotten egg” smell which we find so objectionable. Another side effect is that oxygen is removed from the water as the sea lettuce decomposes and when this occurs, aquatic life such as fish and shellfish die off as they are deprived of oxygen.

For the past two summers we have been monitoring various conditions in the estuary. This has been the first time that WRIG, with support from various provincial and federal government agencies, has begun extensive work in the estuary. In the past we have mostly been involved with rehabilitation and silt abatement in the fresh water streams that feed into the river. Looking at problems downstream within the estuary is a much more extensive and complex exercise.

Although we have a number of suspicions, we need proof to objectively identify the problems before suggesting solutions. We need then to measure various elements, starting with water flow or exchange. Water flow indicates the ability of the

river to remove contributing factors and flush them out to sea, where they will be diluted and not create the problems where we can see them. The provincial government placed flow monitors in the estuary last summer to measure the changes in water level between high tide and low tide. These monitors were up river from the Oyster Bed Bridge and in Crooked Creek. This should give an indication of how much tidal flushing is occurring above the Oyster Bed Causeway.

The next set of monitors was provided by the Federal Department of Agriculture to track sunlight and temperature levels, two key contributors to plant growth. By tracking sunlight and temperature and comparing these measurements with the growth of sea lettuce, we hope to gain insight as to when critical events occur in the life cycle of the sea lettuce and how factors presently beyond our control contribute to the growth of this organism.

Another factor which influences plant growth is nutrients like nitrogen, phosphorous and potassium. Nitrogen contributes to growth of the leafy parts of a plant and it’s believed that high levels of nitrogen have fueled the huge growth of sea lettuce in recent decades. To measure the amount of nutrients found in the water, we have taken water samples at the 1 foot and 4 foot levels at our monitoring sites throughout the summer and early fall both last year and this year. During the summer of 2011 we monitored 4 site: one downstream from the Oyster Bed Bridge, one just upstream of the Bridge, another about one kilometer upstream in the Wheatley River and a fourth on Crooked Creek. We are still waiting for the results from analysis of these samples.

This year we have added two more water sites; one by the mussel beds further out on Rustico Bay and another in Rackam’s Pond. The Rackam’s Pond site will give us results from a fresh water source where sea lettuce is not a factor and the mussel bed monitor will give us a result where the obstruction caused by the Oyster Bed causeway should be less of a factor. It will take us a while to collect and analyze the data that will allow us to make a definitive statement on what is causing the annual bouts of anoxia in our estuary. But at least we have made a start.

*Allie McCrady*

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## Reporting Anoxic Events

Anoxic events usually occur in the salt water portion of our rivers and can occur anywhere from mid June to late September (and occasionally into October). An anoxic event is characterized by a cloudy white to greyish, green discolouration of the water which may be accompanied by a foul rotten egg or rotten turnip type odour. These events may occur in rivers with large amounts of sea lettuce and the

appearance of blackened or dying mats of sea lettuce along with the above discolouration and odours is common.

If you suspect that an area is suffering from an anoxic event, please report it at [wheatleyriver.ca](http://wheatleyriver.ca) or contact Cindy Crane, Surface Water Biologist, PEI Department of Environment, Labour and Justice at 902-368-5179 or [cscrane@gov.pe.ca](mailto:cscrane@gov.pe.ca).

## Note from the Chair: Hello Wheatley Riverians

Well it has certainly been a beautiful summer, but I am sure that most of you will agree that we need rain. There is no question that the watershed is in low supply of water, and we should all be concerned about our groundwater and therefore our wells. It is in times like this that I am even more concerned about what WRIG is trying to accomplish.

Throughout the summer, Beverly Ward, Jennifer Noble, and Desiree Samson have been very busy planting trees, and working on the river. In all the years I have worked with this and other groups, I have never seen a more dedicated crew, and I would like to personally thank them for everything they have done for our watershed. Besides their work, we are also actively collecting water samples and recording data on the river. This will be analyzed throughout the next year, and hopefully we will end up with a very good picture of the temperature, light levels, nitrates and phosphates that affect our river.

I would like to invite everyone in the watershed to come to our "Annual" Wheatley River duck race. This will be held on the long weekend at the end of the summer, and it will be a fun time for everyone. From what I have been told, the ducks have been in serious training, and have learned a lot from the athletes competing in the Olympics. We are looking forward to displaying posters of what we have been doing for the watershed, and we look forward to talking with everyone about the work that needs to be continued. Remember, this is YOUR watershed, and after the summer we have experienced, you need to be concerned about it.

I hope everyone has a great harvest, and until we meet at the Duck race, have a Great Summer.

*Jim Kemp (Chair)*

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## WRIG Coordinator's Report

It's hard to believe that another summer field season is winding down, with our field crew wrapping up their work on August 17. Field Crew Supervisor Beverly Ward reports that the hot, dry summer has allowed our two-person crew to get a lot accomplished. 2012 is done but if you are a landowner in the area, and you'd like stream enhancement work or tree planting completed on your property in 2013, please let us know now.

### Environmental Fun

WRIG is involved in a number of community outreach and educational programs every year but one we would like to highlight is our annual Environmental Fun Day which this year took place at beautiful Rackham's Pond in Wheatley River on May 25. Though the Pond is well known as a fishing destination, it is also a fantastic location for events like this. It



is a fun educational day organized for Grades 5 and 6 from local schools by the Wheatley River Improvement Group, Hunter Clyde Watershed Group, staff from the PEI Department of Labour, Justice, and Environment, and other volunteers.

The students break into small groups with their teachers and rotate through 5 demonstration stations, a Duck Migration Game, Electro-fishing, Fly Fishing, the Water Cycle, Water Chemistry, and Wildlife Identification, so by the end of the day they have visited them all. It is an incredible hands-on learning experience.

### Spillway restoration

A second WRIG project this year is the "Bare Slope Habitat Restoration Demonstration Rackham's Pond Spillway" project (which we will not be referring to as "BSHRDRPS"). Funding for this effort comes from the PEI Wildlife Conservation Fund, which supports fish and wildlife conservation projects in Island communities. Money for the fund is raised through a \$20 yearly contribution from licensed anglers, hunters and trappers.

Have a look at the eroded slope on the east bank of the spillway. This demonstration project is an attempt to see if it is possible to establish hardy shrubs such as bayberry, sumac, elderberry, and willow on a bare slope, and prevent sediment from the slope from entering the River. If we are successful at this site, we may be able to use the same technique at other sites along the River.

Suggestions, comments, or thoughts on anything to do with the Wheatley River Watershed are always welcome. Please contact: Norman Dewar, Watershed Coordinator, 902-569-9115 or email at [norman@wheatleyriver.ca](mailto:norman@wheatleyriver.ca)

*Norman Dewar*

## Field Crew 2012

Our field crew has been hard at work again this summer. Supervisor Beverly Ward and field crew member Jennifer Noble have planted over 950 trees! Many of these were planted along tributaries of the Wheatley River and Crooked Creek and they are all Acadian-type trees (maples, yellow birch, balsam fir, spruce, pine, etc.) that will help to provide cover over the streams and rivers.



**Brush mat construction**

Beverly and Jenn have also been hard at work in the streams, starting in the Art Ford Cross area where they re-brush-matted an area where last year's crew had been working. Next the crew worked on an area of Chapel's Creek off the Buffalo Road that had grown thick with alders. Finally the crew will finish work on a tributary of the Wheatley River, which crosses the Church Road, where the main goal will be to clear some of the major blockages preventing fish passage.



**Bat box construction**

On rainy days the crew has been building bat boxes indoors. These are then placed throughout the watershed to give bats a comfortable place to live.

The crew was also to be found at events such as Rendezvous Rustico and Canada Day in North Rustico, where WRIG distributed trees to community members and answered questions about watershed concerns. A complete report of this summer's work will be posted [wheatleyriver.ca](http://wheatleyriver.ca). Click on the Projects tab.

*Beverly Ward*

## Assessing Riparian Health

Eric Sylvester is a second year student at the University of New Brunswick studying Environment and Natural Resources. This summer he was the Riparian Health Assessment (RHA) worker in an on-going joint project between WRIG and the Hunter Clyde Watershed Group. Streams are assessed for size, sediment levels (in this photo, Eric is measuring sediment trapped behind an abandoned beaver dam), vegetation, human interference, and fish sightings.



All of the data are analyzed and compiled for future use, identifying unhealthy sections for field crews to work on and improve, for comparison to other watersheds, and for measurement of improved health over time.

Eric reports that he observed the watershed in generally good health and productive in terms of fish sightings. He has seen brook trout in most streams ranging from yearlings a couple of centimeters long to second or third years getting up to twenty centimeters in length.

*Eric Sylvester*

Please Consider Joining Our Membership

 Individual or Family \$10.00  
Corporate or Supporting \$50.00  
Simply clip this out and mail it to:

The Wheatley River Improvement Group  
# 215 Buffalo Road, Rustico  
Hunter River, PE  
CoA 1No 

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone \_\_\_\_\_  
Email - Would you like to be notified about upcoming WRIG meetings and events?  
YES \_\_\_\_\_ No Thanks \_\_\_\_\_

Please visit us online at...  
[www.WheatleyRiver.ca](http://www.WheatleyRiver.ca)



**WRIG is always open at [www.wheatleyriver.ca](http://www.wheatleyriver.ca)**  
Come on in anytime.

*WRIG Newsletter is edited in Oyster Bed by Eric C. Riordon*