

WATERLOGS SEPTEMBER 2016



Today, the Bay of Quinte is a healthy and vibrant ecosystem. Now, we must focus on keeping it that way. The RAP is developing long-term monitoring and management strategies to ensure the Bay remains healthy in the future.

A SUMMER OF SCIENCE ON THE BAY - PLANTS AND PHOSPHORUS

One of the main environmental challenges identified for the Bay of Quinte has always been the amount of phosphorus entering it from both urban and rural sources as well as from within. Phosphorus is a naturally occurring element essential for all life. However, excess amounts can cause problems with too much algae, causing negative impacts for recreational uses and threatening the health of the Bay.

One of the research projects happening on the Bay this summer in support of the Bay of Quinte Remedial Action Plan, is collection of data to determine how rooted aquatic plants and algae influence oxygen levels on the bottom of the Bay, where the sediment and water meet, and how this could potentially affect the amount of phosphorus in the water.

During daylight, dissolved oxygen in water is generally plentiful because photosynthesizing algae and aquatic plants are constantly releasing it into the water. After sundown, without sunlight, photosynthesis slows considerably, or even stops. So, in addition to the usual oxygen demands (from fish, macro-invertebrates, tadpoles, etc.), algae and plants are also consuming oxygen from the water for their respiration.

To find out how fluctuating oxygen levels may influence the amounts of phosphorus re-entering the system from the sediments, eight moorings have been positioned in nearshore areas with varying amounts of aquatic plant growth – 4 in a gradient of plant density in the Trenton area, 3 in another transect near Belleville and 1 with modest growth but distant from the main body of the bay (Muscote Bay).

The moorings are solar powered and equipped with a multi parameter sonde measuring: Dissolved oxygen, chlorophyll a, temperature, turbidity, and conductivity. Each sonde is set up to take data readings every 10 seconds 5cm above the sediment-water boundary. This data can be retrieved any time through cellular connections with each individual buoy. The project was designed and implemented by Environment and Climate Change Canada and is the result of the collaboration between the technical and research staff based at the Canadian Centre for Inland Waters (CCIW) and funding from the Great Lakes Action Plan.

This data will contribute to other projects researching the effects of phosphorus on the Bay of Quinte ecosystem, as well as provide new knowledge for the global research community.

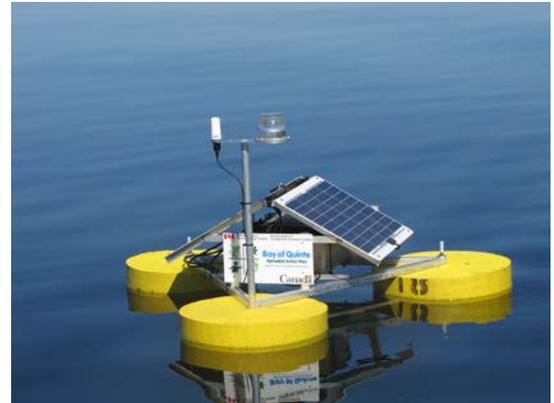


PHOTO CONTEST WITH A TWIST

Here are the winning photos. We received 92 photos and the judges were asked to choose 10 winning photos. Not an easy task. Thanks to everyone who entered, there are some very talent photographers in the area. Over the next couple of months, the artists who have agreed to interpret these photos will be busy completing their works. The photos and the interpretations will be displayed at the Belleville Art Association gallery, as part of the November/December show. Drop by the gallery at 392 Front. St, Belleville and enjoy the Bay of Quinte



Photo by Marilou Dziuban



Photo by Sean Scally



Photo by Justin Anderson



Photo by Sean Scally



photo by Julie Eckert



photo by Mark Hopper



Photo by Justin Anderson



Photo by Marilou Dziuban

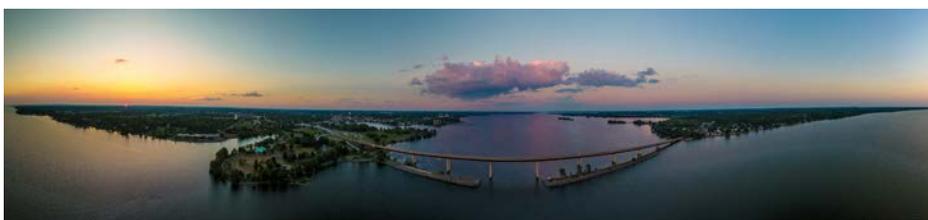


Photo by Abi Reid



Photo by Marilou Dziuban

LANDOWNER STEWARDSHIP PROJECTS

You can help reduce excess algae and aquatic plant growth in the Bay.

Our landowner stewardship programs can provide funding and assistance with design, permits, and other technical aspects of your project. Find out details at:

<http://www.bqrap.ca/communityprograms/landownerstewardship/>

SUBSCRIBE TO OUR NEWSLETTER

Why are fish and wildlife populations healthy and diverse in the Bay of Quinte.

Sign up for our newsletter to find out.

www.bqrap.ca