



## A summer of science on the Bay

As summer continues so does monitoring on the Bay of Quinte. To remove the Bay from the bi-national Areas of Concern list, all the criteria outlined for the 11 environmental challenges identified for the Bay must be addressed.



To accomplish this, numerous BQRAP partner agencies are on the water collecting research data for a variety of water quality indicators like: fish populations, wetland habitat, phosphorus levels, algae species, and a host of other indicators.

This month, we're highlighting the BQRAP Coastal Wetland Monitoring Program. Over the summer months 15 wetlands are monitored for: water quality, underwater bugs, fish and wildlife, and vegetation. Every week from May to October BQRAP staff and Quinte Conservation are out on the water collecting this important data.

The monitoring addresses the criteria established for the environmental challenges - #3 Degradation of fish and wildlife populations and #14 Loss of fish and wildlife habitat.

It's estimated that 12,000 hectares of wetland habitat has been lost within 3.2 kms of the Bay of Quinte primarily to unnatural infilling for agricultural and land development purposes. As well, water level regulation, within Lake Ontario, has reduced the fluctuations necessary for maintaining habitat diversity. Resulting in dense monocultures of cattails in the Bay of Quinte. Additional strains are placed on remaining wetlands as population densities increase. Monitoring of coastal wetlands provides data that is valuable for their protection, restoration, and management.

Coastal wetlands provide many ecosystem services that offer large financial benefits. They are important habitat for fish and wildlife providing spawning areas, food, and shelter, helping to maintain healthy and diverse fish and wildlife populations. In turn, creating recreational opportunities for residents and providing an influx of tourist dollars to the area. Also, they act as filters, removing pollutants, improving the water quality, helping to reduce the need for additional costly water treatment. They act as giant sponges to reduce the impact of floods, mitigating property damage, and in times of drought release water back in to the ecosystem helping to maintain water levels.



Measuring water depth and counting plant species



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Everyone has a part to play in keeping water quality healthy in the Bay. The BQRAP has programs that can help private landowners protect local wetlands and shorelines by providing cost-savings for projects like: livestock fencing, cover crops, waterway plantings, shoreline restoration, agricultural soil testing, and septic pump outs.



Recording water quality indicators



Collecting underwater bugs for identification



Taking water samples for analysis