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LIVING

Shore up waterfront - naturally

You can make crucial piece of waterway habitat a much better place

One of the pleasures of living in the Kawarthas is having the Trent-Severn Waterway (TSW) literally at our doorstep. This navigation corridor, made up of 386 kilometres of inland lakes, rivers and canals, snakes its way from Trenton on Lake Ontario to Port Severn on Georgian Bay. It includes the Trent River, Otonabee River, the Kawartha Lakes, Lake Simcoe, Lake Couchiching and the Severn River and boasts over 4,500 kilometres of shoreline. An amazing 125,000 private and commercial properties abut onto the corridor. It is therefore not surprising that the TSW is faced with enormous development pressure on its aquatic habitats and shorelines.



Drew Monkman

OUR CHANGING SEASONS

Shorelines are one of nature's most biologically diverse habitats, because they are the meeting place of both land and water communities. A healthy, natural shoreline is most often characterized by an area of native flowers, grasses, shrubs, and trees extending back from the water's edge. Fallen trees, logs, rocks, and aquatic plants are usually present both along the shore itself and below the water line.

Healthy shorelines provide wildlife with food, nursery areas, travel corridors, perching and sunning sites, as well as protection from weather and predators. In fact, more than 90 per cent of life in a lake begins along the shore. Walleye, smallmouth and largemouth bass, yellow perch, sunfish, and various minnows, spend most of their life-cycle in or near shorelines. Vegetation, large rocks, and even fallen trees provide food, cover and nesting habitat for many fish species. Rock and gravel bottoms are important spawning areas for walleye, a declining species in the Kawarthas, and for forage species such as suckers, darters and some minnows.

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Ospreys, bald eagles, and kingfishers hunt for fish from dead shoreline trees. Spotted sandpipers feed on the abundant insects that hatch along the water's edge. Ducks eat the nutritious roots and tubers of emergent wetland plants. Mink, too, travel and forage here.

Shorelines also provide breeding and nesting areas, food sources, shelter and hibernation sites for amphibians and reptiles. Turtles use fallen logs as sunning areas. Vegetation and woody debris in the water afford habitat for aquatic organisms on which turtles feed. Reptiles and amphibians are, in turn, food for larger carnivores such as great blue herons.

Insects, too, rely on shorelines. They, in turn, constitute an essential food source for dozens of species of birds. A well-vegetated shoreline is also attractive to dragonflies which are one of the main natural predators of mosquitoes. Nectar-producing shoreline plants like swamp milkweed and Joe-pye-weed are a magnet to monarch butterflies.

There are more direct benefits to landowners, as well. A low-maintenance natural shoreline means less time spent on yard care. Shoreline vegetation catches rainwater runoff and absorbs any pollutants the water may carry. It's also a first line of defense against erosion and will stop Canada



A Kawartha Conservation project took a degraded section of shoreline at Cobocok (top photo) and turned it into a showcase for how a natural shoreline should look (photo above).

geese from coming up onto the property. In addition, natural shorelines don't

need fertilizing. Nutrients from lawn fertilizers are a significant cause of algal blooms and can increase nuisance aquatic plants. In all these ways, natural shorelines contribute to water quality.

However, certain types of human activities along much of the Trent-Severn are seriously degrading natural shorelines. Many people simply don't understand how harmful their actions can be. Many are carried out in an effort to make the shoreline look clean and tidy, just like the yard back home in the city. In the process, however, much of what people are coming up to the cottage to enjoy – clean water, the pleasure of nature, and recreational opportunities such as fishing – is being destroyed. Shoreline alterations remove food and shelter for wildlife, degrade spawning beds for fish, decrease water quality, increase runoff and excess nutrients, warm the water, and encourage growth of algae.

Some of the more problematic behaviours include:

- Dumping sand along the shoreline and thereby covering up good rock rubble habitat.
- Dredging or picking out old stumps and rocks.
- Hardening the shoreline by erecting concrete or armour stone walls. The fact that the walls might use local, “natural” stone is not a rationalization that makes any sense ecologically. Large sections of shorelines throughout the Kawarthas

have seen their natural habitat value destroyed by the construction of these walls. The only time a wall may be justifiable is in situations such as anchoring a dock. A permit is required to build these walls.

- Using aquatic herbicides to get rid of weeds around the dock. This practice can be a health hazard if not done cor-

“The only time a (stone) wall may be justifiable is in situations such as anchoring a dock.”

rectly, since some cottagers take their drinking water from the same area where herbicides are being applied. Unfortunately, people often forget the essential link between ecosystem health, community health and individual health. Herbicides can also drift to other areas of the shoreline and affect natural communities adversely.

- Extending the lawn all the way down to the waterfront and applying fertilizer.
- Planting invasive, non-native trees such as Norway maple and Scot's pine. If your shoreline has been degraded, it is possible to restore it to a healthy condition. Set a goal of having a minimum of 75% of the water's edge in a natural con-

dition. Leave a vegetation buffer zone of 10 to 15 metres extending

back from the shoreline, and then allow the shoreline to return to its natural state. The process can be accelerated by planting native plants such as willows, dogwoods, meadowsweet, steppelbush, speckled alder, winterberry holly, nannyberry, red maple, Joe-pye weed, swamp milkweed, and cardinal flower. When installing a dock, choose either a floating or cantilever model. Because these docks don't touch the lake bed, existing fish and plant communities are not disturbed. Retaining walls, if present, should be eventually removed. Erosion control can be achieved by creating a sloped shoreline integrated with aquatic plants.

On Sunday, July 26, a shoreline rehabilitation workshop will be held at the Ecology Park on Ashburnham Drive starting at 2 p.m. It will be led by Sue Prentice. Please note that Ecology Park is an excellent source of shoreline plants. A good web site on shoreline restoration can be found at <http://www.uwex.edu/ces/shoreland/> Shoreline health is hugely important in protecting the many species at risk that are found along the Trent-Severn Waterway. These include species such as map, musk, Blanding's, and snapping turtles. Parks Canada, through an on-going program called **Waterway Wildlife – Action for Habitat for Health** – began three years ago to raise public awareness and protection for 40 species at risk, and their habitats. The

Photo contest

The Waterway Wildlife program is holding a photo contest this summer. It will provide insight into what people value along the Trent-Severn Waterway and demonstrate that landowners and visitors are indeed seeing and appreciating species at risk and their habitats. **Prizes will be awarded** to selected winners in four categories:

Best species at risk photo

Best Wetland photo

Best Natural Habitat Enhancement or Restoration photo

What the Trent-Severn Waterway Means to You

More information about the photo contest is available at www.waterwaywildlife.com

project included collaboration with the Province of Ontario to inventory vegetation types and species at risk and map their distribution along with sensitive wetland and upland habitats. The maps will be important environmental tools for decision makers throughout the Waterway. Three networks of stakeholder groups, representing over 60 individual organizations including conservation authorities, First Nations, municipalities, land trusts, MNR, nature conservancies, naturalists clubs and others, were created to undertake pilot projects to demonstrate sound habitat rehabilitation and best management practices. Shoreline naturalization, marsh restoration, construction and installation of chimney swift towers, and butternut tree plantings were some of the projects undertaken.

Staff from Parks Canada and stakeholder organizations also undertook a range of public outreach programs that connected with over 10,000 people per year at over 200 events. Through this project, the combined actions of governments, stakeholder organizations and citizens contributed to a culture of conservation throughout the Waterway by promoting sound, informed decision-making, strengthening the awareness of habitat conservation for species at risk and encouraging citizen-based environmental stewardship actions. Thanks to the efforts of dedicated partners and program staff, The Waterway Wildlife – Action for Habitat Health program was awarded the **Parks Canada CEO's Award of Excellence for 2009**, a tremendous honour within Parks Canada.

Parks Canada staff is busy now building on information gathered and relationships forged over the past three years. Currently, much time and effort is being poured into expanding the public outreach and education component of the program. Habitat restoration will continue to be a main focus, once again with the assistance of landowners and stakeholders. “Citizen science” – scientific projects in which volunteers with no scientific training perform research-related tasks such as observation and measurement – will also continue to play a valuable role in future activities. Be sure to visit the Waterway Wildlife web site at www.waterwaywildlife.com to see how you, too, can contribute.

If you are on the waterway this summer, educational products related to the Waterway Wildlife program are available at Lock Stations, and at the headquarters office on Ashburnham Drive in Peterborough. Some of these materials include species at risk collector cards, the “Action for Habitat Health” tabloid newspaper, a CD promoting a greater understanding of species at risk, and cloth grocery bags.

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