

[Newsletter]

VOLUME TWENTY THREE

NEWSLETTER

JANUARY 1999

PLEA Executive

President: Mieke Schipper
Vice President: Bev Watson
Director: Jessie Gordon

Secretary: Sylvia Robertson
Treasurer: Bruce Robertson
Director: Gail Baggs

URGENT:

PLEA IS CALLING ON ALL MEMBERS TO ATTEND A PUBLIC MEETING CALLED BY THE KAWARTHA REGION CONSERVATION AUTHORITY TO VOTE ON MOTIONS CALLING FOR DISSOLUTION OF THE CONSERVATION AUTHORITY. PLEA IS STRONGLY OPPOSED TO THE MOTION TO DISSOLVE.

The meeting is held on Thursday February 11, 1999 at 7:30pm at the Kawartha Conservation Offices, 277 Kenrei Road, Lindsay Ontario

President's Message

by Mieke Schipper

It is with mixed feelings that we start this first Newsletter of 1999. Dan Kennaley, past president of PLEA is leaving the area to accept a position as urban planner in Caledon West. Caledon does know it yet, but they are oh so fortunate. Dan's expertise has been a great asset to the work of PLEA. Thanks to Dan, PLEA's President's message continued:

With the holidays over and many of our members down south, your executive starts the new year with planning for the next Environment Day. In the Newsletter of January 1998, Gillian McCleary reflected on the humble beginnings of this annual event. It started as a small sale of plants suitable for lakeshore plantings. Last year, there were over 50 booths, from photographic art

voice has been heard during hearings of such developments as Sandy Point, Boyd Island, The Emily Township Landfill Site and various others. We congratulate, Dan and Jan, Ian and Erin and we wish them all the best and we'll miss you.

of nature subjects to environmental consultants, to a recycling depot, and naturally our tree and plant sale. Speakers offered educational insights on lakeshore related topics. The PLEA Environment Day has become an event to be reckoned with, but..... too big for the small group of directors. The Board decided early in the fall to connect with other regional environmental groups concerned with lakeshore rehabilitation. Hence the birth of the:

Kawartha Lakes Environment Day,
hosted by PLEA, in association with:
Friends of the Trent Severn Waterway
Stewardship Councils of Peterborough and
Victoria Counties, Federation of Ontario
Cottage Associations, Kawartha
Fisheries Association
and Kawartha Region Conservation
Authority.

As in previous years, the Day will be held on
the first Saturday in May, May 1, 1999 in the
Buckhorn Community Center. Please, note
this day on your calendar. If you have not
been there before, make a point of visiting
this year. You will be kept up to date in the
next few Newsletters.

We will continue our series of articles about
shorelines with a focus on the lake
processes, aquatic plants, physical
alterations and traditional landscaping.
These articles are borrowed from a report
written by Sally Renwick for the partial
fulfillment of the requirements of third year
leading to the diploma of Ecosystem
Management Technology at Sir Sandford
Fleming College. We are indebted to Sally.

Bev's update of library acquisitions is there
as well as her article on the shoreline
restoration project on Paudash Lake. A new
series begins on the history of Pigeon Lake.
As always, if you have any comments or
questions, or an interesting article, please
direct these to Bev Watson, 657-1911.

Protecting the Living Edge **Paudash Lake ,** **the Shoreline Restoration** **Project**

by Bev Watson

This project involved 90 people who
volunteered to restore their shorelines to a

by Bev Watson

Who does the earth belong to? Nobody owns
the earth. Instead, we who live here are merely
its caretakers, stewards if you wish, with obligations
to the planet and to all life on it. Some believe
that the best way to carry out these obligations is
to form land trusts, which are non-profit
organizations that remove parcels of land from
the market place and set them aside for farming,
wild life habitat, timber supply, recreation and
housing. The same idea has led other groups to
become lake stewards and they will oversee the
protection of lakes and the preservation of water
quality for human use and plant and wild life
protection.

A very small group, like the **Pigeon
Lake Environmental Association Inc.** has
neither the money nor the manpower for such
undertakings. So we must concern ourselves
with the smaller things in the belief that healthy
parts will make a healthy whole. Our attention is
focused on that long and very narrow band
where land and water meet.

Every body of water, be it a lake, pond,
swamp, river or stream has one and the health of
this tiny but vital strip affects the quality of the
shoreline as the *living edge* and we believe that
its salvation lies in restoring it to its natural state.
We support those groups who are already doing
this work and we see that our task is to inform
ourselves so we can begin to do the same.

more natural site by planting shrubs, plants
and groundcover that are natural to this
area.

The Paudash Lake Conservation
Association, the Ministry of Natural
Resources and the Ministry of the
Environment and Energy worked together to
do water quality monitoring for 5 local lakes
as well as the shoreline restoration work.

The Environmental Science class from the Bancroft North Hastings High School and their teachers volunteered with MAPLE (Mutual Association for the Protection of the Lake Environment) to cut and pot the plants in the fall which would be transported to Paudash Lake and planted in the spring. There was no charge for these plants.

Artificial structures such as cement breakwaters, large stone retaining walls, docks and boathouses look impressive and certainly control the landscape and shoreline but they do nothing to improve the water quality and they do not improve fish and wildlife habitat.

Ornamental plantings certainly add colour and also look great but again they do very little to protect the sensitive area of the shoreline.

The natural shoreline, the one that has been left almost entirely alone will result in many benefits, which are listed below:

1. it curbs erosion – prevents the land from slipping into the water.
2. Prevents over-fertilization of the water because the invasive root systems of the existing vegetation soak it up like a sponge.
3. Shades and cools the lake water
4. Preserves the ecological balance
5. Maintains the authentic beauty of the landscape.

The Pigeon Lake Environmental Association's library has a copy of the complete report, including photographs of plants and various shorelines. It also has a video tape made by the T.V. program Cottage Life on this excellent project on Paudash Lake.

If you would like to borrow either or both, Although eutrophication is a stage in the natural aging process of a lake, nutrients and sunlight encourage alga and macrophyte growth. Shallow lakes are more susceptible to it because sunlight can

please call 657-1911 and we will arrange for you to get it.

LAKESHORE NATURALIZATION

by Sally Renwick

In the previous issue of the Newsletter, the reason for naturalization and the importance of the shoreline for an ecological balance were explored in an article by Jim Norris and a publication from the Ministry of Natural Resources.

In this article we will look at the processes that are ongoing in lakes, the importance of aquatic plants, physical alterations to the shoreline and traditional landscaping.

Open water is one of several stages that a lake completes in its natural and gradual change from a lake to a bog, and finally to dry land. Lakes are characterized as being oligotrophic, mesotrophic or eutrophic. Eutrophic lakes, such as the Kawartha Lakes are farther along in the aging process.

When algae and aquatic plants die they settle to the bottom and use oxygen to decompose. In a eutrophic lake, phosphorus suspended in the water nourishes algae growth and accelerates the eutrophication process. Eutrophied lakes are shallow, cloudy, have an abundance of plants and favour warm water fish species. Eutrophication causes fish kill, aquatic habitat diminishes and natural plant and animal species are replaced by less desirable ones. (Brown 1994)

penetrate to the bottom of the lake. The eutrophication process is accelerated by human activities such as sedimentation and nutrient loading. Nutrient enrichment upsets the natural balance of the lake. Excess

aquatic plant growth deprives other species such as fish from oxygen, and crowds out other plant species that may provide habitat. Human induced sources of nutrient inputs to lakes include surface run-off containing fertilizers, detergents with phosphates, faulty septic systems and waste from houseboats. The entry of nutrients can be reduced by shoreline vegetation.

The shoreline does not stop at the shore, but extends into the water. There are two main types of aquatic plants – macrophytes and algae. Although these aquatic plants are important to lakes they can be a nuisance to recreational users.

Macrophytes are rooted plants that feed on sediments from the lakebed. They may be submerged, having some leaves float on the surface. Macrophytes provide food, shelter, spawning and nursery ground, and foster wildlife. They also stabilize shorelines and lake bottoms, which helps to decrease erosion and maintain water quality.

Algae are suspended and feed on nutrients found in the water. It forms the base of the food chain for other aquatic life. It appears as a slime or scum layer that develops near the surface of the lake. Excess algae growth consumes oxygen and competes with other plants for sunlight.

Human activities that cause nutrient inputs to lakes can cause excess aquatic plant growth. Another cause of excess plant growth is sedimentation. Increased sediment inputs not only provide plants with a rooting substrate, but can also destroy aquatic habitat and spawning areas. The removal of shoreline vegetation is a key cause of sedimentation. (MOEE 1990b)

Physical alterations at and around the shoreline can harm aquatic species. The removal of vegetation or construction of structures such as retaining walls, docks, boathouses alter the shoreline and harm riparian habitats. This can reduce fisheries by eliminating spawning areas for fish and can destroy habitat for small fish, plants and aquatic insects. Rather than building physical structures that alter the natural action of waves, it is preferable to maintain a shoreline that will gradually break their force rather than deflect them. Engineered erosion control measures often result in transmitting erosive energy to another area. A health and gradually changing shoreline will benefit water quality and aquatic life.

Traditional landscapes, such as a manicured lawn that extends right to the water are directed towards visual and aesthetic goals. They often include the use of non-native species and lack biodiversity. They are frequently energy and input intensive and require excessive amounts of water for their maintenance. These landscapes do not retain the natural features of the area or perform ecological functions.

On shoreline properties landscape design impacts the entire lake ecosystem. The impacts of increased urbanization, resulting from clearing the shoreline vegetation and increased inputs of sediment and chemicals to the lake are negatively affecting the water quality and habitats of the Kawartha Lakes. These impacts are cumulative when they take place over a large areas of the shore.

In the next issue, we will look at how to naturalize shoreline property.

Save

Kawartha Region Conservation

Authority

Your Executive wrote the following letter to the municipalities of the Village of Bobcaygeon, the Village of Omemee, and the Township of Manvers:

Dear Council Members:

The Executive of the Pigeon Lake Environment Association Inc. wishes to express concern with your proposed withdrawal of support for the Kawartha Region Conservation Authority.

In 1946 the Conservation Authority Act came into existence which gave regional Authorities a mandate to manage natural resources in cooperation with provincial and municipal governments. As a result of changes in philosophy with the consequences of severe cutbacks, the provincial Ministry of Natural Resources has lost much of their capacity to share the responsibilities of monitoring and managing the natural resources so bountiful in the Kawartha's.

Ecological systems live beyond the geographical boundaries of municipalities. It is therefore essential that a regional approach, which takes into consideration particular ecosystems such as the watershed of the Kawartha Lakes, is used in managing such resources.

The shoreline of Pigeon Lake falls within the boundaries of five municipalities: Harvey, Ennismore, Emily and Verulam Townships and the Village of Bobcaygeon. If the Village of Bobcaygeon should withdraw their support, but the other townships would not, Bobcaygeon would still reap the benefits of for example the work on water quality and fish population. This does not seem fair and it clearly illustrates the point that management of natural resources finds its boundaries by natural systems and not artificial ones.

We urge you to reconsider your position and look forward to a reversal of your proposal.

Sincerely,

Mieke Schipper
President of PLEA

LIBRARY UPDATE:

We received from Environment Canada:
"Rehabilitating Great Lakes Habitats,
a Resource Manual"

This manual has many relevant information guides such as:

- Techniques for biodiversity
- Artificial Nest Structures for Ospreys
- Reefrafts for Common Terns and Fish: Guidelines for Design, Construction and Operation
- Fish and Wildlife Habitat Management: Best Practices
- Protecting your shoreline naturally
- and many more.

We have the following brochures:

- Help for Landowners who want to branch out
- Working around the water
- Protecting Trent-Severn Waterway Shorelines
- Zebra Mussels
- Another outbreak of Forest Tent Caterpillars
- Reversing the losses
Fish Habitat need your help

call Bev at 705-657-1911 if you wish to borrow any of our acquisitions.
