



Great Lakes: Beer Coasters to the Rescue! posted on 09/16/04

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The innovative beer coasters convey a message of conservation to US residents in the Great Lakes region.
Photo: Biodiversity Project

The North American ecosystem known collectively as the Great Lakes is the world's largest freshwater system, keeping 37 million people alive and servicing major cities such as Chicago, Detroit, and Toronto.

Like many water bodies around the world, the Great Lakes are in danger from pollution, habitat destruction and invasive species. In response to this, the Wisconsin-based Biodiversity Project, a national conservation group, has developed a unique tool to reach the public with a message to save the Great Lakes: beer coasters.

The "conservation coasters" feature a beautiful picture of the region and the words, "Welcome to your wonderful, important, magnificent, vulnerable Great Lakes". On the back, the organization has wisely provided educational information about protecting these waters and surrounding land. The "Great Lakes Forever" coasters are being used at local restaurants and bars all along Wisconsin's Great Lakes coastline, through Milwaukee and even into Minnesota.

"Pollution is closing our beaches and contaminating our fish," stated Jeffrey Potter, coordinator for Biodiversity Project, "...but it's not too late to make a change for the better."

Extensive industry and urban development near these waters has contributed to decades of dumping chemicals, sewage and other toxic waste, which now threaten the Lakes as contaminated sediments. In addition, fallout from air pollution largely generated by coal-fired power plants is responsible for over 90% of mercury contamination in the Great Lakes.

Collected by bottom feeders, who are eaten by other fish, these contaminants eventually work their way up the food chain and pass to humans in a process called biomagnification. Strategies for managing this contamination problem have been the subject of much debate – but little effective action -- by governments on both sides of the border.

In recent years, bacterial contamination has reached such high levels, especially in Lake Erie, that for several months each year there is a 100 mile "dead zone", where life in the lake is non-existent due to oxygen depletion. In 2003, the beach closings and advisories for Lake Michigan increased by over 50% from the previous year, according to the Lake Michigan Federation.

Another area of concern for the region is the destruction of water- and land-based habitat due to the growth of cities and towns. At least 30 of the ecological communities within the Great Lakes basin, such as freshwater sand dunes and tall grass prairies, are rarely found anywhere else in the world.

These basin lands are also home to unmatched species of flora and fauna, as well as birds and animals - many of them rare and endangered. White-tailed deer, black bears, and coyotes roam the forests. Majestic eagles and osprey soar overhead, while spotted sandpipers, snipes, and herons bathe in coastal marshlands.

Since the 1800's, more than 140 aquatic invasive species have become established in these

extensive waters, primarily as a result of human activity. The major source of these non-native species is ballast water used to balance cargo ships while they are at sea. Tens of thousands of gallons of ballast water are dumped by each ship when it takes on new cargo in the Great Lakes, often depositing exotic (non-native) species into the freshwater basin. These plants, animals and even microscopic organisms threaten the area's natural balance of nature.

Dr. Phyllis N. Windle, a member of the Union of Concerned Scientists, observed that underestimating the impact of invasive species is akin to playing "ecological roulette with the Nation's resources."

Some of the Great Lakes' most notorious invasive species are the zebra mussel, round goby, and sea lamprey. It costs U.S. and Canadian taxpayers \$15 million annually to keep sea lamprey populations under control, however new research has scientists **questioning their invasive status**.

Mitigating the impacts of ballast water requires international regulations and enforcement, which were attempted a decade ago but fell short because they were not made mandatory. Recently, a revamped policy, National Aquatic Invasive Species Act (NAISA), was introduced in U.S. Congress. The good intentions of this document will have to wait, as it is still pending in Congress due to more pressing national priorities.

For their part, the Great Lakes Forever beer coasters offer some great tips that we can all do locally, such as "Get your lawn off drugs", referring to the extensive use of dangerous chemical fertilizers and pesticides in yards and gardens. Another is "Buy organic and locally-grown produce", which supports local economies - and more importantly, reduces transportation-related pollution and costs associated with imported products. For a complete list visit the **Great Lakes Forever website**.

One of the best ways to keep our local waters clean is to simply pick up litter on the shorelines of our lakes, rivers and streams. Join the **Great Canadian Shoreline Cleanup**, on now until September 19, 2004.

Source: Vancouver Aquarium Marine Science Centre

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