

Now Organizing

Pennsylvania Lake Erie Watershed Association Looking for New Members; General Meeting Scheduled Nov. 29

Pennsylvania Lake Erie Watershed Association (PLEWA), a nonprofit organization established in January of this year to work for the protection, restoration, and enhancement of the region's watershed, is seeking new members from the community.

PLEWA calls anyone interested in watershed issues to:

- Become a charter member of an organization that will work for sustainable development of the watershed;
- Help develop policies and practices for operation within the watershed;
- Network with individuals and organizations to further the goals of PLEWA; and
- Attend roundtables and forums to educate others and challenge them to action in protection of the watershed

PLEWA received a state Growing Greener grant in the spring and adopted an organizational structure in August. Individual member-

ship is open to adults, seniors, and students; youth under 12 can also join, but will not receive voting rights. Organizational membership is sought from local government, business, industry, agriculture, sports groups, environmental and conservation agencies, clubs, and educational institutions.

A general membership meeting is planned for Wednesday, Nov. 29, at 7 p.m. in the Heritage Room at Mercyhurst College. For information about PLEWA or to register for the meeting call Pat Lupo OSB at the Glinodo Center, 899-4584.



Contribute to "Keystone Shorelines"

Pennsylvania Sea Grant welcomes contributions or story ideas for inclusion in *Keystone Shorelines*, which is published quarterly. Contact Steve Curcio at (814) 898-6358 or via email at xsc2@psu.edu for more information. We'll be glad to include your contributions as space permits. The deadline for submission for the Winter 2001 newsletter is January 5.

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Pennsylvania Sea Grant, part of the National Sea Grant Program, is a partnership of Penn State, the Commonwealth of Pennsylvania, and the National Oceanic and Atmospheric Administration dedicated to the sustainable development of water resources.

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Biennial Report Enclosed

Pennsylvania Sea Grant is pleased to enclose its Biennial Report 2000 that includes highlights from the first two years of operation in the Lake Erie watershed. If your copy of this newsletter does not include the report, or if you need additional copies, please contact us.

Sea Grant Helps Fund Boat Dock, Water Taxi Signs

In keeping with its mission to promote wise use of the region's marine resources, Pennsylvania Sea Grant has helped fund signs for two new projects undertaken by the Erie-Western Pennsylvania Port Authority.

The signs promote the Transient Boater Facility at Wolverine Park and at the Water Taxi/Shuttle Bus between Liberty Park and Presque Isle State Park.

The Transient Boater Facility sign is located on the North Pier at the entrance to Erie Harbor and tells boaters how to contact the new marina. Designed for short stays in Erie, it is operated by Lakeshore Towing Services and accom-

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Expansion Plans

Pennsylvania Sea Grant to Serve Delaware River Watershed

Pennsylvania Sea Grant is preparing to submit an invited proposal to the National Sea Grant Office for three more years of funding. During this period the outreach program will begin positioning itself to attain Institutional status, which includes additional funds for research. Pennsylvania Sea Grant is currently designated a Coherent Area Program, a provisional status given to all new Sea Grant outreach programs.

National Sea Grant has asked Pennsylvania Sea Grant to establish itself as a statewide resource by expanding its extension, education, communications, and applied research efforts into the Delaware River coastal zone. Pennsylvania Sea Grant staff recently traveled to Philadelphia to meet with watershed-related organizations to discuss this expansion.

Participants represented many different groups, including Pennsylvania's Department of Environmental Protection, Academy of Natural Sciences, Heritage Conservancy, Nature Conservancy, Partnership for the Delaware Estuary, Delaware River Basin Commission, and Delaware Valley Regional Planning Commission.

During the trip, staff also met with representatives of the Veterinary School at the University of Pennsylvania to discuss involvement in aquaculture, and in particular, urban and farm pond aquaculture.

A number of issues were identified during the meeting with the watershed organizations that potentially could be addressed through Pennsylvania Sea Grant's extension efforts:

- Fish consumption advisories
- Provision of technical support for watershed groups
- Land use planning for the urban coastline
- Endangered species
- Producing a public version of environmental indicators that have been developed for the Philadelphia area
- Enhancing public access to the Delaware River
- Habitat creation and restoration, including wetlands, inlets, and wetlands banking
- Development of fishways for diadromous species of fish
- Reuse of abandoned commercial piers
- Addressing PCB issues in cooperation with Delaware and New Jersey.

Sea Grant staff are now working with the Department of Environmental Protection and others to determine the best way to expand in the Philadelphia area. The first staff member will be a liaison with the Department of Environmental Protection, followed by an urban planner to address coastal land-use issues. Finally, a part-time person will be hired to address fisheries and aquaculture issues.

Future issues of *Keystone Shorelines* will update the progress of this expansion.

Mini-Grants for 2001

Applied Aquatic Research on Native and Non-Native Species, Water Quality

Pennsylvania Sea Grant has distributed nearly \$80,000 in state funding to support 12 applied research projects in the Lake Erie watershed.

"This entry into the research arena supports our existing extension program," Pennsylvania Sea Grant Director Robert Light said. Funds for the applied research projects come from a line item in the Commonwealth of Pennsylvania's fiscal year 2001 budget to be used for Sea Grant activities. These small, highly focused research projects directly support critical extension issues being addressed by Sea Grant staff, and include:

AQUATIC NUISANCE SPECIES

- Round goby (*Neogobius melanostomus*) diet, habitat preference, and reproductive strategies in Presque Isle Bay
- Impact of the round goby on tributary streams of Lake Erie
- A sampling of Presque Isle Bay for the water flea (*Bythotrephes cederstroemi*)
- Characterization of the microplankton and microbenthic communities of near-shore Lake Erie
- Trophic transfer dynamics of polynucleated aromatic hydrocarbons (PAHs) from zebra mussels to round gobies

NATIVE AND ENDANGERED SPECIES

- Presence and refugium of native mussels in Presque Isle Bay
- Current distribution and breeding protocol of the Iowa darter (*Etheostoma exile*)

WATER QUALITY

- Presque Isle Bay toxicants: Possible cause of asymmetry in banded killifish (*Fundulus diaphanus*)
- Changes in gene expression in plants exposed to specific pollutants found in the Presque Isle Bay watershed: A pilot study
- Geographic locations and habitat requirements for mayfly nymphs in the Pennsylvania region of Lake Erie
- Ecology of avian botulism along Pennsylvania's Lake Erie shoreline
- Spatial and temporal distribution of arsenic in Presque Isle sediments



Hike 'n Bike Seaway Trail Signs Now Follow Pennsylvania's Coastline

Good news for anyone craving good views: Signs promoting Seaway Trail Pennsylvania, the stretch of coastal highway that primarily follows Routes 5 and 5A from the New York to Ohio borders, are finally in place at strategic points along the Pennsylvania route.

Earlier this year, the Pennsylvania Department of Transportation erected 95 signs along Erie County's 46-mile portion of the scenic byway that extends from the New York-Quebec border through Ripley, N.Y., and into Pennsylvania.

The mission of Seaway Trail Pennsylvania is to promote recreational and tourism opportunities offered by a waterway corridor in a manner that enhances the economic vitality and quality of life within the Commonwealth. It will be administered by the Erie Area Convention & Visitors Bureau as a way of promoting wise and sustained use of lakefront resources in trailside communities.

In 1991, the U.S. Department of the Interior declared the Seaway Trail a National Recreational Trail. The Convention & Visitors Bureau, under then-Executive Director

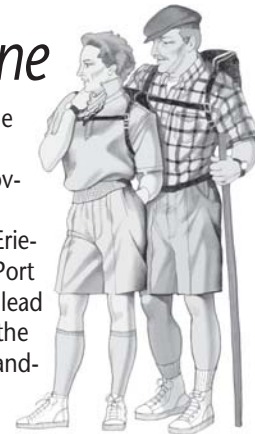


August Schiava, was the organization that kept the original project moving forward.

More recently, the Erie-Western Pennsylvania Port Authority has taken the lead in obtaining funds for the signage. Dahlkemper Landscape Architects and Contractors did the design work and coordination of the signs. Through downtown Erie, the trail parallels the bayfront.

"We are excited to be a part of Seaway Trail Pennsylvania," said Emily Beck, Executive Director of the Erie Area Convention & Visitors Bureau. "Marketing the trail to potential visitors from out of town will bring Erie additional tourism in the years ahead." Beck is a member of the Pennsylvania Sea Grant Advisory Council.

For more information, visit the Seaway Trail web site at www.seawaytrail.com or contact the Erie Area Convention & Visitors Bureau at (814) 454-7191.



P³ERIE

Environmental Coalition Has Removed, Recycled Nearly One Ton of Mercury from Lake Erie Watershed

P³ERIE (Pollution Prevention Partnership, Environmental Responsibility in Erie) helped protect the Lake Erie watershed by collecting approximately 20 pounds of mercury and 60 mercury-containing items from the public on Saturday, Sept. 23. This collection was P³ERIE's third in three years, bringing its collection total to nearly 1,700 pounds of mercury and over 4,000 mercury-containing items.

"We believe the sharp decline this year is strong evidence that we have met our goal of removing this dangerous substance from basements, garages and cupboards in the Erie area," says Ed Orris, project manager for the Pennsylvania Department of Environmental Protection (DEP). "By getting this material off our shelves and properly recycling it we have significantly reduced the risk of mercury exposure to our community and our watershed."

In 1998, 1,250 pounds of mercury were collected from businesses and the public; 400 pounds were collected from the public the following year.

The collection helps the United States to make progress toward the goals of the Great Lakes Binational Toxics Strategy (BNS) signed by the U.S. and Canada in 1997. The BNS calls for a 50 percent reduction in the release and deliberate use of mercury nationwide by 2006.

P³ERIE is a voluntary pollution prevention initiative comprised of representatives from Pennsylvania Sea Grant, International Paper Erie Mill, GE Transportation Systems, Gannon University, the Erie County Dental Association, Strong Vincent High School, Erie County Recycling, the City of Erie Wastewater Treatment Plant, and the Pennsylvania Department of Environmental Protection. "Pennsylvania Sea Grant became involved with P³ERIE because we fully support the partnership's mission to reduce the amount of persistent toxic substances used and released in the Lake Erie watershed," Sea Grant Coastal Tourism and Communications Specialist Steve Curcio says.

Mercury has been phased out of many consumer items but is still found in some thermostats, thermometers, and industrial switches. "We have many cases where a family moves into an older home and finds a jar of mercury in the basement," says Orris. "People have given us mercury once used in a wide variety of items, including homemade barometers, sphygmomanometers (blood pressure meters), a World War II-vintage ultraviolet light, and a sextant from a nineteenth century Spanish shipwreck."

For further information about mercury recycling, please contact Ed Orris of the DEP at (814) 332-6075.

Freddy the Fish Goes Bilingual

In cooperation with the International Institute of Erie and Earth Force students from Villa Maria Academy, Pennsylvania Sea Grant has produced translations of fish consumption advisories for Lake Erie and Presque Isle Bay into the Bosnian and Vietnamese languages. The information presented in the *Freddy the Fish* brochures also will be translated into Russian and Spanish.

The goal of this initiative is to convey information about the health risks of eating Lake Erie and Presque Isle Bay fish to non-English-speaking subsistence anglers who catch and eat lake and bay fish as a regular part of their diet.

Under the guidance of advisor Marlene Trambley, five Villa Maria Academy Earth Force students in 1998 created Freddy, a health-conscious illustrated fish that helps people understand the chemical contamination concerns associated with eating fish caught in Lake Erie and Presque Isle Bay. Consumption advisories statewide are jointly issued by the state Fish & Boat Commission, Department of Health, and the Department of Environmental Protection and are based on test results of fish from watersheds throughout the Commonwealth.

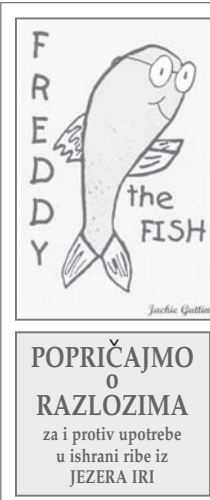
Many of the most commonly occurring fish in the lake and bay should be eaten only once a week or once a month at most; it is suggested that channel catfish and lake trout not be eaten more than once every two months. Carp over 20 inches long should

not be consumed at all.

Earth Force students Jackie Gutting, Katie Hart, Rachel Hudson, Emily McCommons and Melissa Peters wrote and designed the *Freddy the Fish* brochure using information received from Kelvin Burch of the Pennsylvania Department of Environmental Protection and Robert Wellington of the Erie County Department of Health. Pennsylvania Sea Grant edited the brochure and continues to facilitate language translations and brochure dissemination. To date approximately 3,000 copies of *Freddy the Fish* have been printed and distributed.

In September 1999, 15 Erie Earth Force students and five educators presented the findings of their Freddy the Fish public awareness campaign at the Student Congress of the International Joint Commission Forum on Great Lakes Water Quality.

For more information or to get a copy of the *Freddy the Fish* advisory brochure, contact Pennsylvania Sea Grant at 898-6420.



Sea Grant Funds Signs

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modates 20 to 25 boats of up to 75 feet. Dock space is available from one to ten days; 480 slips were rented this year and several reservations already have been received for the 2001 boating season.

Amenities at the facility include water and electric hook-ups, a pump-out station, private showers, restrooms, laundry, vending machines and a ship's store. A courtesy dock is available for boaters who wish only to visit the ship's store and Smith's Bait Stand, which will be operated out of the facility beginning in 2001.

The water taxi signs identify the locations of the water taxi/shuttle bus stops in the Liberty Park area of the bayfront, just north of the Park and Ride lots. From there, riders can travel to Dobbins Landing and the Waterworks area of the park. The water taxi schedule is timed to allow passengers arriving at Waterworks to meet a shuttle bus operated by the Erie Metropolitan Transit Authority that will make several stops throughout the park. Bus drop-offs at Waterworks are scheduled to coincide with return water taxi service to the bayfront.

Ray Schreckengost, executive director of the Erie-Western Pennsylvania Port Authority, is a member of the Pennsylvania Sea Grant Advisory Council.