



River Currents

December 2003

Issue 30

Happy Holidays!



An Evening Along Patcong Creek (Fred Akers)

A Year In Review

GEHWA has had a very interesting and productive 2003. With your support, we continue to be involved in a number of worthwhile activities that encourage and promote long-term protection of the Great Egg Harbor National Scenic and Recreational River and watershed. We have cultivated relationships with state, federal and local organizations and have reinforced GEHWA's partnership role in the south Jersey area. Here are a few highlights of GEHWA activities in 2003.

- ✎ GEHWA and our other river partners in the Northeast Region successfully educated our congressional officials about the importance of the seven partnership rivers under the National Park Service. This active education process resulted in a 2004 appropriation of approximately \$900,000 to be used to promote long-term protection of the following rivers within the National Wild and Scenic Rivers System: Farmington River in CT., Great Egg Harbor River in NJ, Lamprey River in NH, Lower Delaware River in PA & NJ; Maurice River in NJ, Sudbury, Assabet & Concord Rivers in MA, White Clay Creek in DE.
- ✎ The Geological Association of New Jersey (GANJ) hosted a well-planned and well-attended symposium on October 10th & 11th that unveiled the Periglacial Science Project that GEHWA Trustee Mark Demitroff has been leading with Dr. Hugh French from the University of Ottawa for the past three years. There was a one-day presentation of papers at Richard Stockton College and then an

astounding field trip including two busloads of very interested scientific and public participants. This cutting edge science initiative which has direct applicability to the Great Egg Harbor River was financially sponsored by both GEHWA and the National Park Service.

- ✎ As River Administrator, Fred Akers has been extremely busy. There is no shortage of possible projects that he can get involved in and he has managed to accomplish an incredible amount of work this year. Recognizing the need for additional funding, Fred secured a grant from the Watershed Institute which will provide funding to support GEHWA activities in the watershed. Fred's photo documentation of the stormwater issues at Adams Branch has helped Hamilton Township recognize the importance of addressing this issue and will hopefully result in a grant from NJDEP to consider stormwater management options. Fred has become a regular participant at Pinelands Commission meetings representing GEHWA's interests. It is not uncommon to see Fred in waders collecting samples of wood and sorting them with Dr. Cromartie at a Stockton College lab to assist in a special water quality study focused on aquatic wood habitat. Fred helped lead a Stockton Ecology class field trip of stormwater basins and development trends and impacts in Egg Harbor Township in the English Creek area and has been sited at many locations along the river inventorying significant resources, identifying problems, photographing opportunities and being the watchful eyes for GEHWA in the watershed.
- ✎ GEHWA's relationship with Atlantic County has been very rewarding. As a result of this partnership, GEHWA has been able to identify critical parcels in the watershed for acquisition by the County and has been an active participant in Atlantic County's Groundwater Advisory Committee. This committee will be addressing water issues in the County, including conservation and wastewater reuse.
- ✎ Our part-time Education Coordinator, Belinda Irizarry, continued to represent GEHWA at many environmental workshops and festivals. Belinda's involvement at these events ranges from providing information at a table to working with children and adults on special projects that she develops to promote better land stewardship. Belinda organized a number of GEHWA-sponsored activities, including the annual dinner tour for members and the first GEHWA kids tour of the river. Belinda's interactive environmental puppet show continues to be a favorite in the classroom. There is no shortage of ideas and enthusiasm when you are with Belinda. GEHWA is most fortunate to have such a dedicated person.

NJDEP and the USF&WS Educate GEHWA Members

The meeting was well attended on November 25th as members listened to presentations from Eric Schradig from the US Fish and Wildlife Service and Kim Korth from the NJ Division of Fish and Wildlife; Endangered and Nongame Species Program. Both representatives explained the programs they work on and spent time answering the many questions that were asked.

Eric was instrumental in getting the fish ladder approved at Lake Lenape and explained how the design of the ladder actually works. Once the ladder is completed in 2004, herring and other fish will

make their way upstream to almost 15 miles of uninterrupted waterway. It is hoped that the natural areas of the non-tidal stretch of the river will provide excellent fish habitat and also increase the number of raptors that exist in the area.

Kim provided details on the NJ Landowner Incentive Program and the criteria used to determine property eligibility. The purpose of this program is to encourage private property owners to voluntarily protect threatened and endangered species. For further details on this program, see the October issue of *RiverCurrents*, page 6.



Two Townships in the River Corridor Approve Open Space Tax

When asked if residents wanted a 1-cent tax added to their property taxes to help fund open space, Weymouth Township residents overwhelmingly said "yes". Michael Hogan, President of the Township's Environmental Commission, recognized the need to promote open space in an area experiencing rapid development and is encouraged by the support received on this issue.

approved. Monroe Township, which is experiencing significant development, recognized the importance of acquiring open space and creating recreational opportunities while land is still available for purchase and development. Hopefully, those residents that were not in support of the trust fund will be encouraged when critical properties are purchased for protection and use for future generations.

Travelling up river to Monroe Township, a two-cent open space trust fund tax levy was narrowly

New Geological Discoveries Advance Science in the Watershed

For the past 3 years, GEHWA Trustee Mark Demitroff has led scientific expeditions throughout southern New Jersey where exciting new geological discoveries have been made. In partnership with renowned international periglacial expert Dr. Hugh French of the University of Ottawa, these discoveries have led to a new interpretation of how our landscape of today was created by powerful forces of the past.

Mark obtained the first aerial photographs taken of our watershed in 1930/1932, and discovered that the absence of the forest canopy from large scale clear cutting revealed very unusual ground patterns and surface hydrology. Many small ponds could be easily seen, and a search for the existence of these ponds today revealed that many of them had disappeared. This compelling question came into Mark's focus, "Was our groundwater disappearing, and if so, why?"

With financial assistance first from the Buena Vista Township Environmental Commission, and then from GEHWA and the National Park Service, Mark was able to recruit Dr. French to come to South Jersey and take a close look at our unusual geology. Operating on only expense costs for 3 years, Mark and Dr. French made numerous field trips around the state and in adjacent states, and spent many days inspecting and digging in local sandpits. The discovery of relic sand wedges, deformed sediments, and unusual rock formations, combined with a focused analysis of existing science and the 1930's aerial maps, have led this duo to create new theories of geological evolution supported by a number of scientific papers that they have written.

They now believe that during the last two ice ages, conditions in southern NJ were far colder and drier, and the climate changed more radically than previously thought. They theorize that 15,000 years ago South Jersey was a polar semi-desert with frozen ground 30ft to 45ft in thickness, blasted by very high winds coming off the glacier fields up in the New Brunswick area. Our landscape has great similarities to Antarctica, Eastern Greenland, and islands in the Canadian Arctic where these conditions currently exist, and this could help to explain the shape of our rivers and floodplains and other landscape features like bluffs. These discoveries could also offer important insight to the creation of our groundwater hydrology and how it actually functions.

In recognition of these scientific accomplishments, the papers have been published in respected scientific journals, and the Geological Association of New Jersey (GANJ) offered Mark and Dr. French the opportunity to present their findings to the local scientific community at the GANJ annual symposium and field trip this past October. This was a two-day event, with a presentation of papers by a number of experts on October 10th, and a field trip to see a number of their actual geologic discoveries on October 11th.

This event was well organized and well attended, and approximately 80 people in two buses attended the field outing. Now that this cutting edge science sponsored by \$12,000 worth of grants from the National Park Service through GEHWA has been so eloquently presented to the local public, Mark and Dr. French would like to follow up with an exclusive international working field trip and meeting sometime during the fall of 2004. They believe that to actually advance the geological science of our watershed and its relationship to global climate, they need to corroborate with the best international experts in this field to validate their new data and to confirm and enhance their theories



Ice wedge orientation at GANJ field trip



Group at involutions during field trip

The Great Egg Harbor River Receives a Facelift in Folsom

The Folsom Environmental Commission hosted a Fall Great Egg Harbor riverbank cleanup. Eight adults and nine Brownie/Girl Scouts attended from the Folsom and Buena Vista Township area. Ten large bags of garbage and recyclables plus a few bulk items were collected from various riverbank

locations throughout the Folsom Borough. Afterwards, participants were treated to lunch at Penny Pot Park. The scouts also received a Folsom Environmental Commission t-shirt, turtle puppet, and goodie bag compliments of GEHWA and the ACUA (Atlantic County Utility Authority).

Swamp Trail Boardwalk Gets Extension

Many of us who frequent Estell Manor Atlantic County Park along Route 50 appreciate the diversity in recreational opportunities you can experience along the 15 miles of trails. Whether you are visiting the Fox Nature Center curious about the animals that live in the park, bicycling your way to the water's edge, or exploring the historic remnants of times gone by, Estell Manor Park has much to offer. One of the more unique features of the park is the six-foot wide Swamp trail boardwalk that travels through wetlands opening up a whole new arena of

birds, plants and wildlife as well as scenic views of both the Great Egg Harbor and South Rivers. Constructed on an old Bethlehem Loading Company rail bed, this unusual and accessible trail enables the visitor to walk through a natural area without damaging vegetation and wildlife habitat. Recognizing the value of the boardwalk, Atlantic County received \$25,000 from the federal Recreational Trails Program to extend the boardwalk another mile. Check it out. You won't be disappointed.



Threats to New Jersey's Environment

A final report of the NJ Comparative Risk Project was released that ranks land use change, indoor and outdoor pollution, and invasive species as major threats to NJ's environment and people. Funded by both the state and the US Environmental Protection Agency, the report provides 178 detailed analyses of stressors from acid precipitation and benzene to West Nile Virus and zinc. Its findings indicate that

the conversion of undeveloped land poses the top ecological and socioeconomic risk to NJ's environment and people. Indoor pollution and outdoor air pollution pose major health and socioeconomic risks, and invasive species pose serious ecological threats to several NJ ecosystems. A complete copy of the report is available on the DEP web page at www.nj.gov/dep.

PPA Presentation Offer

Remember if you are affiliated with an organization or group that hosts speakers, consider planning a Pinelands Preservation Alliance (PPA) presentation. PPA offers presentations on: Water in the Pinelands; Threatened & Endangered Species; Pinelands

Overview; and Pinelands: Up Close and Natural. PPA will also work with you to develop a program or presentation to suite your particular needs and interests. Call Mike Pippin at (609) 894-8000 to discuss your needs or schedule a presentation.

Remember:

If you become aware of an environmental incident, call the NJDEP's 24-hour, toll-free hotline which is 1-877-WARN-DEP

Telephone Numbers to Remember:

Great Egg Harbor Watershed Association

P. O. Box 900; Hammonton, NJ 08037
e-mail address: gehwa.gehwa@verizon.net
Internet address: www.greategg.org

Julie Akers, President (856) 697-6114
Belinda Irizarry, Coordinator; (609) 567-4762

Great Egg Harbor River Administrator

Fred Akers, (856)-697-6114; Akers@gowebway.com

National Park Service

Mary Vavra (215) 597-9175; mary_vavra@nps.gov

NJDEP Watershed Management Office

Adriana Calle (609) 777-0586

Atlantic County Department of Planning

Bob Lindaw (609) 645-5898

NJDEP Hotline - 1- 877-WARN DEP

US Army Corps of Engineers

(215) 656-6725

NJDEP Regulatory Office for Atlantic Co.

(609) 292-8262

NJDEP Enforcement Officer

Kevin Brown (732) 255-0787

Happy
Holidays!



River Administrator's Desk

Water Quality Studies Continue on the Great Egg Harbor River

By: Fred Akers

The quality of both the surface water runoff and groundwater that goes into the tributaries of the Great Egg Harbor River is an ongoing focus of concern by a number of agencies in the state. In addition to the NJ Department of Environmental Protection, Richard Stockton College and the Great Egg Harbor Watershed Association have been working together this year to study some of the causes and effects of non-point source pollution and stormwater runoff.

Dr. Jamie Cromartie, Associate Professor of Environmental Studies at Stockton, is currently working on the second phase of his efforts to attempt to determine a reliable biological measuring method to assess water quality in the Pinelands character waters of the Great Egg Harbor River (GEHR) system. The historical biological measuring methods used by the NJDEP to measure long-term water quality changes came into question last year and consequently many biologically impaired stream segments have been put on a special list because of "insufficient information" to readily determine what the problem is.

Last year, Dr. Chromartie investigated the state's current biological sampling techniques funded by a grant from Atlantic County, and this year he has narrowed his focus to study just one single biological habitat type, with funding from Rutgers. It often occurs at the biological sampling locations that there are limited aquatic habitat types, which tends to limit the diversity of aquatic species present. To address this inconsistency in the habitats at sampling sites, Dr. Chromartie is focusing on woody debris as the one habitat that seems to be a common denominator at most sampling sites.

With both field and laboratory assistance from GEHWA and Stockton Interns, Dr. Chromartie has developed a uniform sampling plan of collecting sticks suspended in the water column at various locations in the watershed. Numerous stick samples have been collected and taken to the Stockton lab where they were brushed and scraped and any macro-invertebrates living on the wood were collected, sorted and carefully identified.



Fred Akers & Dr. Chromartie collecting samples



Dr. Chromartie & Julie Akers at the lab

Many macro-invertebrates live on this woody debris that continually falls into our rivers and streams. Some of them eat the wood, some of them hold onto the wood to filter nutrients out of passing water, and some of them are either hiding in the wood from predatory macro-invertebrates or are predatory macro-invertebrates looking for food. Most of these macro-invertebrates will grow to become flying insects that will emerge from the water

and become Dragon Flies, Caddis Flies, Black Flies, and a host of other flying insect species.

Both the field collection of aquatic wood samples and the detailed laboratory analysis require a significant amount of effort, and the microscopic identification work is particularly tedious. And...there is no guarantee that any direct correlation between this methodology and water quality assessment will be derived. But Dr. Chromartie and GEHWA know that continuing to investigate our rivers and streams and applying the best scientific methods possible is the only way that progress can be made to help us understand water quality degradation and the ways to prevent it from happening or fix it when it does happen.

Unlawful Motors in the Woods: Will We Find the Road to Public Protection and the Rule of Law?

By: Fred Akers

The New Jersey public is well aware of the need to preserve open space, and the rush is on to acquire and protect as much land as possible. While Gov. Whitman's "million acre initiative" was aimed at **new** protection for farms and woodland, there has been too little focus on what happens **after** properties become "protected." Right before our eyes our growing open space, and private property as well, is increasingly suffering off-road motorized damage.

Thousands of riders of ORV (Off Road Vehicle) 4-wheelers and dirt bikes purposefully disregard trespass laws by invading property they do not own, crunching everything in their paths and leaving trails of ruts and potholes, damaged soils, cleared vegetation, and disturbed wildlife. These riders have a "catch me if you can" mentality as they thumb their accelerators at the rule of law, and the manufacturers and dealers are in denial that their products and customers cause serious damage to the land.

Protecting the public from this onslaught is now up to the State Legislature, but little progress has been made. On June 27, 2002, Assemblyman Reed Gusciora, District 15 (Mercer), introduced bill A2595 to the Assembly's Law and Public Safety Committee. It raised the penalties for illegally operating a snowmobile or all-terrain vehicle. Unfortunately the bill failed to provide funding for its enforcement. A companion bill, S1692, passed unanimously in the Senate on October 7, 2002, but A2595 is still "in committee" over a year later.

Other lawmakers and the NJ-DEP have also been struggling with this growing problem. While Commissioner Bradley Campbell was developing a policy to deal with damage to State land and injuries to Conservation Officers by ORV outlaws, Assemblyman Eric Munoz, District 21, (Essex, Morris, Somerset and Union), introduced A2238 on May 9, 2002. This bill would prohibit off-road vehicles in State parks and forests. But it also failed to fund enforcement, and, since it would take away the currently allowed special use permits for dirt bike events on State land, the American Motorcycle Association coordinated a national lobbying campaign against the bill.

On October 4, 2002, Campbell issued a policy directive for off-road vehicle use, which was basically "zero-tolerance" of unauthorized use of State land, combined with a plan to create more **legal** riding areas in the state. (<http://www.state.nj.us/dep/newsrel/releases/orvpolicy.htm>) Commissioner Campbell also promised to work with the Commissioner of the Department of Transportation and the "Fix DMV Commission" to develop appropriate legislation to both increase penalties and "establish comprehensive registration, licensing, and insurance requirements for ORVs."

Since last October, a DEP special committee has been working to locate appropriate State lands for legal ORV use. Many potential sites have been identified, and the environmental community through the Non-Game and Endangered Species Program has been invited to participate in the selection process. A site inspection tour was



conducted this summer, and several of the sites have received preliminary approval by the environmental interests, including the Sierra Club.

But there is broad-based recognition that the creation of more legal playgrounds for ORVs will not prevent their unlawful use on other State land, county and municipal land, and private property. On May 18, Conservation Officer Tracy Stites was severely injured when a malicious ORV rider ran him down in an attempt to elude capture. Actual enforcement, given the speed and maneuverability of the vehicles, the often-remote areas involved, and the hostile attitude of many riders, carries high levels of cost and risk. Right now the public pays both the direct costs of enforcement, and the indirect costs of land damage and personal injuries.

It is time for our Legislature to establish a comprehensive State policy to regulate all off-road vehicle uses. The policy should include a substantial registration fee at the time of purchase, so that all ORV riders will pay for the enforcement required to protect the public from their actions. Identification license tags, adequate insurance, and safety training and environmental education should also be required.

The New York-New Jersey Trail Conference has picked up the ball and drafted a 32-page amendment to the current DMV Title 39 laws to regulate ORVs. What we need now are legislative champions in the Senate and Assembly -- willing to promote the rule of law and protect our open space by sponsoring this amendment.

Calendar of Events

It will be quiet the next few months, except for regularly scheduled meetings listed below:

- ** **Gloucester Co. Federation of Watersheds** – 4th Thurs. of every month; 7PM; Scotland Run Nature Cntr.
- ** **Great Egg Harbor NS&R River Council** – 3rd Wednesday of every month; 7PM; Fox Nature Center
- ** **Great Egg Harbor Watershed Association** – 4th Tuesday every other month; 7PM; Fox Nature Center; Estell Manor Park; Jan/Mar/May/July/Sep/Nov 2003

For more information on events and programs: Call (609) 567-4762; www.greategg.org or e-mail gehwa.gehwa@verizon.net.

Membership Information

Your membership assures our survival as a non-profit advocate for the Great Egg Harbor River and Watershed. Without you, we could not exist. Thanks for your support.

Name/Organization: _____
 Street Address: _____
 City, State, and Zip: _____
 Phone Number: _____ e-mail address: _____

Annual Membership: Individual: \$7; Family: \$15; Supporting: \$20; Patron: \$50; Corporate \$100

_____ Check here if non-profit organization

Please mail this form along with your check to: Great Egg Harbor Watershed Association, P.O. Box 900; Hammonton, NJ 08037