

NEW STUDY: Intersex in Fish Linked to Endocrine Disruptors



Fish that swim in water with endocrine disrupting contaminants show signs of compromised immune systems.

Thanks to the work of Vicki Blazer and other US Geological Survey collaborators, we are beginning to get a clearer picture of what may be causing fish health decline and intersex in the Shenandoah River System in previous years. Their most recent paper in the peer-reviewed journal *Science of the Total Environment*, entitled "Chemical Contaminant in water and sediment near fish nesting sites in the Potomac River basin: Determining potential exposures to smallmouth bass" reveals that chemical contaminant exposure plays a key role in intersex development and possibly fish health decline due to lowered immune system function.

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Protecting Our River from Excessive Pollution

Potomac Riverkeeper, along with Food & Water Watch and Patuxent Riverkeeper, has filed a Clean Water Act notice of intent to sue NRG Energy, Inc. for water pollution violations at three of its coal-fired power plants in Maryland.

Our notice alleges that the company has been and continues to be in violation of its nitrogen discharge limits at the Dickerson and Morgantown facilities on the Potomac and the Chalk Point facility on the Patuxent. It also reveals that NRG is engaged in a complex system of credit swapping and offsets among the three plants.

Under the Clean Water Act, "point source" facilities like NRG's power plants operate with permits that limit the amount of pollution each plant can discharge. These limits are designed to minimize harm to local waterways while motivating industries to implement technological upgrades to reduce discharges. Each of NRG's three power plants are permitted to discharge nitrogen in the hundreds of pounds, but recent discharge monitoring reports Food & Water Watch obtained under a Maryland Public Information Act request show the Dickerson power plant exceeded its discharge limits by over 4,000 pounds in 2010 and 2011. Also, the Morgantown power plant exceeded its limits by over 7,000 pounds in 2010 and 5,000 pounds in 2011.



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NRG Energy has violated its pollution discharge limits by thousands of pounds for years.

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New Study *continued from page 1*

This study uncovered a strong correlation between the hormonal strength of water samples and the presence and severity of the intersex condition (generally when male fish develop eggs in their testes). Additionally, intersex correlated very well with both herbicides and naturally occurring plant hormones in water samples and sediment extracts near smallmouth nests. Two pesticides shared the highest correlation: Atrazine, a known endocrine disrupting compound banned from use in Europe but widely used as an herbicide in crop farming in the Shenandoah Valley, and a pesticide called trans-Nonachlor.



Agriculture and density of livestock in the stream basin correlate strongly with intersex in fish.

Previous papers by Blazer and others have determined the hormonal strength (levels of estrogen) of our river water correlates strongly with the density of confined animal feeding operations (factory farms known as CAFOs). Also, the prevalence of intersex (measured by the percentage of male smallmouth bass with both male and female sex organs) correlates strongly with the percentage of land use that is agricultural and the density of livestock in the stream basin. Finally the severity of intersex, meaning the number of immature eggs in smallmouth testes, correlates strongly with the presence of things such as poultry houses and sewer treatment plants.

The recent paper concludes that the body of evidence linking common pesticides with intersex and possibly lowered immune system function in fish, is growing rapidly and deserves our careful attention. These studies remind us that we need to make smart choices about the chemicals we use in our own lives, as well as in agriculture and industry. Potomac Riverkeeper is dedicated to ensuring we develop protective regulations to safeguard our rivers, communities, and families.

For more information, please contact Jeff Kelble at Jeff@ShenandoahRiverkeeper.org

Protecting Your River *continued from page 1*

NRG failed to meet permit limits even while attempting to transfer pollution “credits” among the three power plants. Two years ago, NRG sought a permit modification from the Maryland Department of the Environment (MDE) to allow them to purchase pollution credits from Maryland farm operations in addition to their intra-plant exchange of pollution credits. MDE has yet to act on NRG’s request.

The law is clear here – NRG needs to upgrade their facilities to comply with their discharge permits. The Clean Water Act does not allow industries to buy their way out of compliance with the purchase of credits, the swapping among sources, or other offsets. Moreover, this kind of pollution trading can have dire consequences for people living near the sources. If industries are allowed to purchase the right to continue to pollute, it’s the surrounding communities that will have to keep bearing the brunt of the pollution’s harmful effects.

For more information, contact Robin Broder at Robin@PotomacRiverkeeper.org.



Pollution trading schemes like NRG is proposing will lead to more pollution of our local waterways and further harm disadvantaged communities.

View from the Potomac

We Want You to be Involved!

Since assuming my duties on January 1, I've spent a great deal of time getting up to speed on what we do and why. (In case you were wondering, we are actively engaged on more than two dozen issues, which doesn't include any of our legislative work or projects to establish and map water trails. It is a truly extraordinary amount of activity for a staff of eight!)

One of the programs I'm most excited about is Riverwatchers. Riverwatchers are our volunteers who help protect water quality by documenting and reporting pollution to us. Riverwatchers extend our reach throughout the entire watershed (the more eyes and ears on the lookout for polluters the better!) and provide us with the real-world examples we need to enhance our credibility when we are working on policy or litigation.

At our Annual Benefit for Clean Water on April 28, we will have a special appeal to raise the funds necessary for launching a new mobile app that will make reporting pollution fast and simple. The money raised will also provide training for our volunteers, and support for field staff who will follow-up on all the reports. Every dollar we raise will go toward finding polluters and holding them accountable.

Riverwatchers is just one of the ways we are finding innovative and cost-effective solutions to protecting our rivers and streams. Please join us on April 28th at our Benefit to help us celebrate our past successes and chart a course toward cleaner, healthier water.

I look forward to seeing you then!



View from the Shenandoah

Easy Come, Easy Go

Actually, this article should be entitled "difficult come, easy go."

It all started five years ago when homebuilding was at a feverish pitch. Shenandoah Riverkeeper had busted quite a few builders for polluting nearby streams due to bad erosion and sediment control. We had fought for, and gained, a new permit provision that required all construction site Pollution Prevention Plans to be available to the public.

At the Soil and Water Conservation board meeting in Richmond I found myself in the position of having to fight keep that provision. I believe that the Homebuilders Association lobbied Governor McDonnell and his director of the agency. They then directed the agency to remove the provision and I was unable to convince the citizen board to reinstitute it. This was a bitter pill because I'd been operating under the mistaken notion that once you make a gain, the gain would be more or less permanent. But I've learned there is no such thing as a permanent improvement. They must not only be obtained, but maintained. And as long as polluters seek to avoid or even rewrite laws and regulations, Shenandoah Riverkeeper will be ever vigilant.


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Upper Potomac River Manager



Bill and Avis Moore enjoying the Shenandoah River Rodeo last summer.

In Loving Memory of William Moore

It was with heavy hearts that we learned of the passing of William Moore. Bill and his wife, Avis, a Potomac Riverkeeper Board Member, have been staunch supporters of Potomac and Shenandoah Riverkeepers from the beginning. Bill gave generously and was a fixture at so many of the events held by Potomac Riverkeeper every year. We could always count on him to make the journey out to the Shenandoah Valley for the Shenandoah River Rodeo every summer, including last July.

We all owe a debt of gratitude to Bill and Avis for everything they have done for the health of our rivers and this organization. Bill will be sorely missed by everyone associated with Potomac Riverkeeper and all who knew him.

Interview with Garrett Peck

Author of *The Potomac River* and *The Smithsonian Castle and Seneca Quarry*

Q. How did you come up with the idea to write a book on the Potomac River and Seneca Quarry?

A. My newest book on the Seneca Quarry is essentially a sequel to *The Potomac River*. I researched and visited hundreds of historical sites along the Potomac and found that Seneca Quarry was a virtually undiscovered site that was also historically very significant to D.C.'s history and culture.

Q. What was the most surprising piece of information you discovered in your research?

A. I actually uncovered a national scandal involving President Grant and corrupt investments made to the Seneca Sandstone Company, which ultimately led to the bankruptcy of the Quarry as well as the local Freedman's Bank. I dedicate an entire chapter to this scandal in the Seneca Quarry book.

Q. Why should Potomac Riverkeeper members, and river enthusiasts in general, be interested in your books?

A. Many of us are already interested in the ecology of our river and how our water source directly impacts our health and wellbeing. It is also important to acknowledge that our river has its own history. The more people begin to understand the importance and connection between the ecology and history of the Potomac, the more we are able to appreciate it resulting larger efforts to conserve and protect our Nation's River.



Join Garrett Peck as he talks about the famous Seneca Quarry sandstone.

Get your copy of *The Smithsonian Castle and the Seneca Quarry* online today by visiting www.PotomacRiverkeeper.org/riverkeeper-store!

**Thursday, March 28
6:30 pm
1100 15th St, NW, 11th Flr
Washington, DC 20005**

Join us for a special members book talk with Garrett!

Garrett will be in our office, talking about his new book, answering any questions, and signing your copy! Don't miss this exciting opportunity!

Thank You for Making Our 2012 Events So Successful!

On behalf of everyone associated with Potomac and Shenandoah Riverkeeper, we want to thank each and every one of you who donated to our organization and participated in our events last year. Your investment of money and time helped us continue to fight for the health of the Potomac and Shenandoah Rivers and their tributaries. Our success is only possible thanks to friends like you!

We have big plans for 2013 and your support is once again going to be essential. Thank you for all you do for our rivers!



Last year we held the largest on-the-water rally for swimmable, drinkable, and fishable waters.



During our first annual Splash! event, participants got out on the water in a race to the finish!



Our Annual Benefit for the Potomac is a celebration of the river and your participation in keeping it a resource for all.



Shenandoah Riverfest is a day long festival that includes games, swimming, kayaking and fun for the whole family.

The annual Shenandoah River Rodeo in August offers a day of fishing followed by an evening of BBQ, dancing, and general fun!

Help Extend a Warm Welcome to Our New Board Members!

John Holmes

John begins his first term on the Board with over forty years of experience in environmental engineering and air emissions regulation and permitting. He has a home on the North Fork of the Shenandoah River and is on the Board of Friends of the North Fork.

Roy Sewall

Roy is a full-time photographer who has published two books on the Potomac River and has established himself as one of it's leading photographers. He was the first chair of the Board of Directors for the C&O Canal Trust where he continues to serve on the Advisory Board.

Mac Thornton

Mac is returning to the Board for his 10th year of service as Chair of the Litigation Committee. Mac has been involved in water conservation since he founded the West Virginia Rivers Coalition in 1989 and practices law part-time at SNR Denton, a Washington firm.

Connecting People to Their Waterways

This past January Potomac Riverkeeper received a Stream Partners grant from the West Virginia Department of Environmental Protection. This grant program focuses on projects that enhance community connections to rivers and work toward improving the quality of life around streams and watersheds. We will be using these funds to work on the Patterson Creek Blue Trail.

The primary goal of the Patterson Creek Blue Trail project is to develop maps of this lovely stream in Mineral County. The West Virginia portion of the Potomac Watershed has several small stream systems that are great for paddling and fishing, but are not well known to the general public. Our intent at Potomac Riverkeeper is to create maps for many of these small streams and make it easier for families and people of all ages to get on the water. Patterson Creek is the first of several maps that we look to develop.

Information from the map will also be posted online. The map will be available to the public for free and will hopefully bring new visitors to these relatively undiscovered areas.

For more information, contact Brent Walls at Brent@PotomacRiverkeeper.org



We are connecting people to their rivers by developing maps to promote access and use of the river.

Access to Public Rivers: A Sometimes Confusing Story



Ownership of the river bottom and fishing rights are in dispute as landowners claim full rights at the expense of other river viewers.

Many of our members who enjoy Virginia's rivers have been closely following the trespass case on the Jackson River.

Unfortunately, the court's recent ruling hasn't exactly clarified the situation. The judge ruled cautiously by stating that the fishermen (defendants) have less of a claim to the river bottom than the landowner (plaintiff). The full meaning of the ruling is still the subject of considerable debate. But you can be assured that we are developing strategies on how to seek clarity on the confusing issue of public vs. private ownership as it relates to access to our rivers.

Riverkeepers throughout Virginia are also developing a white paper designed to trace the historic roots of public property (the commons) and outline the Commonwealth's responsibilities as trustee of the commons on the public's behalf. We also expect to design legislation seeking to find

a just resolution of these matters to satisfy both river users and landowners. Two pieces of state legislation were recently introduced on this issue that we considered unacceptable. Fortunately, they were pulled by the sponsors. However, we understand a committee is being formed that will study this issue for the re-introduction of legislation next year. As the legislative committee begins to meet we will report in detail about the proceedings.

For more information, contact Jeff Kelble at Jeff@ShenandoahRiverkeeper.org

A Long Road to a Clean Up of Coal Ash Pollution

In 2008, Potomac Riverkeeper filed a notice of intent to sue Mirant's Faulkner coal fly ash disposal facility near Morgantown, in Charles County, Maryland. The disposal site, now owned by NRG Energy, was leaching toxic pollution into the Zekiah Swamp. Fly ash from coal-fired power plants contains heavy metals, high levels of sulfates, hydrocarbons, radionuclides, and other pollution toxic to both humans and the environment. After we filed our notice, the State of Maryland filed a suit against the facility, which began a long and convoluted road in which we tried to intervene but were denied while the case was consolidated with two other coal fly ash disposal facilities and moved from state to federal court.

Early this year, a consent decree was finally drafted that requires NRG Energy to pay a civil penalty of \$1.9 million to the state. NRG Energy is also required to clean up existing contamination of ground and surface water at the Faulkner site and the Westland site at Dickerson in Montgomery County, Maryland, both on the Potomac, and the Brandywine site on the Patuxent River. NRG Energy must use the best technology available to clean up discharges from the sites and take other remedial actions to prevent further contamination. Additionally, it will be required to evaluate whether nearby drinking water wells have been impacted by pollution at the sites and, if so, take action to clean up the contamination.



© The Baltimore Sun

A truck dumps coal ash at the Faulkner facility in Charles County, Maryland, one of the disposal sites that is leaching toxic pollution.

Groups allowed to intervene in the case are asking that the consent decrees be amended to require new permits for any new disposal cells at the sites. Potomac Riverkeeper filed an amicus brief supporting that request. The State has assured us that there will be no new cells at the Faulkner site at Morgantown. But we are concerned about the potential of new cells at Westland. As this article goes to print, we were awaiting the court's answer.

For more information, contact Robin Broder at Robin@PotomacRiverkeeper.org



Protect the River, Become a Riverwatcher!

Since its inception, Potomac Riverkeeper's volunteer Riverwatchers have served an essential role, directly supporting our work by serving as our eyes and ears (and oftentimes noses too!) throughout the entire 14,670 square miles that drain into the Potomac. Whether you are a weekend warrior, leisurely angler, hardcore paddler, casual hiker, or passionate birdwatcher, we want you to join our team of Riverwatcher volunteers. No experience necessary!

To learn more about this fun and exciting volunteer opportunity, attend one of these training sessions!

Saturday May 11, 2013	REI College Park, MD	11 am - 1 pm
Sunday June 23, 2013	REI Rockville, MD	2 pm - 4 pm

Stay tuned for more training dates and locations throughout the area.

For more information visit www.PotomacRiverkeeper.org/Riverwatcher or email Whit Overstreet at Whit@PotomacRiverkeeper.org

Raise a Glass to Clean Water!

Join us for a tasting of local
beers and wines

Sunday, April 28, 2013 | 3:00 pm--6:00 pm
SNR Denton Penthouse
1301 K Street NW | Washington, DC 20005

Our 11th Annual Benefit will take place at the at the SNR Denton Penthouse in Downtown Washington DC. We are excited to be offering tastings from some of your favorite, and perhaps some new, breweries and wineries!

There will also be heavy hors d'oeuvres generously provided by Clyde's, as well as an open bar, live auction, music, awards, and more! Stay tuned for announcements about our Protector of the Potomac and Volunteer of the Year Award.

To sponsor this event or purchase tickets, please visit www.PotomacRiverkeeper.org/Benefit2013 or contact Sarah Sorenson at Sarah@PotomacRiverkeeper.org

Come join us April 28 to celebrate our beautiful rivers!

Clyde's

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