

Conservation News Eastern New York Chapter Spring 2012

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Hidden Risk of Mercury

Most people think of mercury contamination as occurring through fish and shellfish consumption, but the mercury problem isn't that simple. According to a new report, *Hidden Risk*, the mercury problem is far more widespread and is already affecting wildlife in New York. It also has the potential to impact people.

"Mercury is now not just a problem for aquatic species. It is a problem on the ground," said Dr. Timothy Tear, director of conservation science for The Nature Conservancy in New York and The Nature Conservancy's Africa Region.

The study, published by the Biodiversity Research Institute in partnership with The Nature Conservancy, shows that the levels of mercury in New York's birds and bats are at dangerously high levels.

Mercury gets into the air largely through emissions from coal-fired power plants, solid waste incinerators, and various smokestack industries and the numbers of these are all increasing. Airborne mercury eventually returns to earth in rain, snow, and fog droplets as well as in dry form.



Bicknell's Thrush ©Larry Master

Mercury contains a potent neurotoxin we know in humans can be passed on to children in the uterus and can result in learning disorders and nerve damage. In fact, the recent EPA Mercury and Air Toxics Standards rule that includes a call for reducing mercury 90% by 2015 is estimated to reduce a wide range of health issues – premature deaths, chronic bronchitis, heart attacks, asthma attacks, hospital and emergency visits, and restricted activity days – at an estimated savings of \$30-90 billion.

Songbirds, bats and bugs in people's backyards are being heavily impacted. Bats, already suffering due to white-nose syndrome, are greatly threatened. A recent study showed that pest suppression alone by bats in the U.S. is valued at \$22.9 billion per year.

Birds at contaminated sites are three times more likely to abandon their nests, the report says, so they are less likely to reproduce. Bird song is also affected. Birds with high mercury can't hit high notes and their songs are simplified.

"We're just beginning to understand the impacts of mercury on both ecological and human health. We need to support efforts at all levels to reduce mercury – global, regional and local," adds Tear. "Mercury is coming from multiple levels, and no single level will be enough."

To learn more, visit nature.org/hiddenrisk.

Director's Message



Dear Friends,

The Hudson Valley has long been a preferred hiking destination for me. Since joining The Nature Conservancy almost two years ago, I have added a few more spots to my list of favorites in the region. At the same, I no longer approach my time in nature without thinking about the Conservancy's mission to protect the lands and waters upon which all life depends.

From its start in New York 60 years ago, the Conservancy has steadily evolved to take on new challenges. As our role as a global conservation leader advances over the next 60 years, we know the future will require us to think broadly and do more than ever before. Despite the mounting challenges that lay ahead, some things will never change. What won't change is our commitment to strong science and working with partners.

In this newsletter, you can read how our on-the-ground science found that mercury is a problem for more than just fish and what it means for people and nature. You can also read how we used innovative GIS mapping techniques to model the potential cumulative impacts of high volume hydraulic fracturing (hydrofracking) on forest resources.

There is also a piece about our new audio tours available at select preserves. We hope you find the time to visit one of these preserves and the many others throughout Eastern New York.

As you head outside this season, we urge you to invite someone to join you so that they too can explore the natural world. The future of conservation requires that we connect a broader constituency to our work and you can help us by inviting others to learn more about conservation.

I also encourage you to visit us regularly at nature.org/eastern for ongoing conservation news and inspiration.

Thank you for your support of our work.

Sincerely,

Rick Werwaiss

Rick Werwaiss
Executive Director

If Only the Trees Could Talk

What might they tell you?

Hikers at the Arthur Butler Sanctuary and the Lisha Kill Natural Area can now find out.

Using their mobile phones, visitors can scan a QR code posted on trail signage throughout the preserve and listen to a self-guided audio tour.

"People come to the preserves because they enjoy spending time in nature," said Troy Weldy, director of ecological management. "The audio content enhances the experience by making it more informative. Since we can't have a naturalist on the trail all the time to explain the surroundings, the technology provides a convenient way to learn about the history of the preserve, important features along the trail and interesting facts and information about the plants and animals found here."

The audio tours provide information on a variety of topics including hawk watches, flying squirrels, glacial history, forest composition, and conservation champions.

"Bringing technology into nature aids visitors in another way, especially those with teens reluctant to leave their mobile devices behind," said preserve steward Matt Levy. "Family visitors tell us that the audio tours help to persuade their teens to join them on a nature walk."

People unable to visit the preserve can listen to the tours, available in English or Spanish, at nature.org/nyaudiotours.



Due to its long history as a protected area, a variety of large specimen trees are found at the Butler Sanctuary. © Ellen Weiss/TNC

Fracking and New York's Forests



©Cara Lee/TNC

A new, first-of-its-kind study released by The Nature Conservancy illustrates the wide range of possible impacts on forests between the smallest and largest build-out scenarios for well pad development. The study focuses on the potential cumulative impacts of high volume hydraulic fracturing (“hydrofracking”) on forests in Tioga County, in New York’s Southern Tier, and provides a better understanding of the trade-offs that must be considered as New York continues to evaluate Marcellus Shale natural gas development.

The report, *An Assessment of the Potential Impacts of High Volume Hydraulic Fracturing (HVHF) on Forest Resources*, considers the possible cumulative impacts of natural gas well development in

Joining Our Board

The Eastern NY Chapter welcomes Eric R. Katzman to its Board of Trustees. Mr. Katzman is a Senior Research Analyst, Managing Director at Deutsche Bank where he has covered the food industry for the past 11 years while at the firm. For the last several years, in addition to research coverage, he has been on the Research Management Committee with responsibility for the consumer sector. Previously, he worked at Merrill Lynch where he was the U.S. coordinator of food research and covered the industry starting in 1996. Mr. Katzman is a devoted conservationist and enjoys hiking in wilderness area in New York State and around the world.

one New York County, as an example of how an assessment of cumulative impacts to forests can be carried out. Tioga County was the one county selected for the analysis due to its location in the Marcellus Shale fairway and its proximity to active gas drilling in neighboring Pennsylvania counties.

“Concern over fracking usually centers on protecting clean, safe water,” said Cara Lee, lead for the Conservancy’s New York Energy Team. “People also need to remember that forests are crucial to clean water.”

Much of New York’s \$11 billion outdoor recreation and tourism industries are also dependent on the health of these forests. Forests store carbon and help mitigate extreme weather conditions and flooding, serving as a natural “insurance policy” in the face of climate change.

The study uses innovative GIS mapping techniques to model the cumulative impact of high volume hydraulic hydrofracking on natural gas for forest resources, the analysis considered and then modeled the number and distribution of well pads expected to be constructed, natural land cover, and new road infrastructure in Tioga County.

The report finds that the forest disturbance will be extensive. Up to 450 miles of new roads – the distance between Buffalo and Boston – to be built in the county would fragment the large sections of forest, resulting in disruption and loss of habitat for plants and animals.

“Only with a full understanding of hydrofracking’s cumulative ecological impacts, rather than a site-by-site perspective, will New York State be able to take the necessary steps to avoid the risks posed by development,” said Lee. “Our analysis can help decision makers and the public understand the potential cumulative impacts of development on forest resources.”

To download a copy of the report, visit www.nature.org/nymarcellus.

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