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For Immediate Release

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NEW SCIENTIFIC STUDIES IDENTIFY CAUSES OF MERCURY POLLUTION HOTSPOTS

Results suggest EPA analysis inadequate and Clean Air Mercury Rule could perpetuate biological mercury hotspots

Hanover, NH – Scientists released the results of two new studies that identify five known and nine suspected biological mercury hotspots in northeastern North America and for the first time link them directly to causes. The authors pinpoint U.S. coal-fired power plants as the major source of the problem and document new ways that airborne mercury emissions can cause biological hotspots -- namely in watersheds sensitized by decades of acid rain and reservoirs manipulated for power production. New results reveal that EPA's mercury deposition estimates near one hotspot are far too low. The studies are the result of a three-year effort by the Hubbard Brook Research Foundation (HBRF) and are the cover story of the January issue of the peer-reviewed scientific journal *BioScience*.

The HBRF team of 11 scientists used an extensive database of more than 7,300 samples to quantify mercury levels in fish, loons and other wildlife from New York to Nova Scotia. "Statewide fish advisories are a blunt tool that are useful, but don't demonstrate just how severely polluted some waters really are," said Dr. David Evers, Executive Director of the BioDiversity Research Institute. "We found fish with mercury levels that were more than 10 times higher than the EPA human health criterion. People need to know where these highly polluted lakes exist so that they can take appropriate precautions when choosing where to fish and whether or not to consume that fish," said Evers.

Senator Susan Collins (R-Maine) commented today on the national importance of this research as she announced that she is introducing new legislation to reduce mercury pollution. "I have long-argued that EPA used faulty science in order to justify an insufficient mercury rule, and these studies prove it," said Senator Collins. "EPA misrepresented the mercury problem based on computer data which had not been peer-reviewed, and then put out a rule which does not account for mercury hotspots and which places children and pregnant women at risk.

"With these studies, David Evers has shown the importance of real, on-the-ground mercury measurements, instead of relying solely on the computer model used by EPA to justify its misguided rule. I am introducing legislation to reduce mercury emissions by 90% and to create a nationwide mercury monitoring network. Congress should act on this issue expeditiously."

The HBRF team linked the biological mercury hotspots to sources of mercury pollution and found that mercury emissions to the air are the leading cause. According to Dr. Charles Driscoll, a first author of one of the studies and the University Professor of Environmental Systems

Engineering at Syracuse University, “Mercury emissions to the air cause biological mercury hotspots in watersheds sensitized by decades of acid rain, reservoirs manipulated for power production and other purposes, and locations near large emissions sources, such as coal-fired power plants.” The authors were surprised to find that some remote areas, such as the Adirondacks Mountains of New York, are so sensitive that even a moderate amount of airborne mercury pollution can produce extremely high mercury levels in fish and wildlife.

The studies also present a new analysis showing that mercury deposition is five times higher than previously estimated by EPA near a coal plant in the vicinity of a biological mercury hotspot spanning southern New Hampshire and northeastern Massachusetts – calling into question EPA methods and the appropriateness of the cap-and-trade policy in the EPA Clean Air Mercury Rule. “Our modeling results support a growing body of evidence that a significant fraction of the mercury emitted from coal-fired power plants in the U.S. is deposited in the area surrounding the plants,” said Dr. Thomas Holsen, Professor of Civil and Environmental Engineering at Clarkson University and co-author of the studies.

The concern over local impacts has prompted several states to reject mercury trading and adopt more stringent emissions standards for coal-fired power plants in their EPA-mandated plans and prompted the writing of new draft federal legislation aimed at documenting and tracking mercury pollution and hotspots.

The good news is that the HBRF team also determined that mercury levels in fish and wildlife can decline relatively quickly in response to decreased airborne mercury emissions within the region – a new finding for the Northeast.

“There is still a lot that we don’t understand about mercury, but it is clear that biological mercury hotspots occur and that mercury emissions from sources in the U.S., as opposed to China and other countries overseas, are the leading cause. Mercury emissions will have to be reduced substantially from current levels if we are to see recovery in sensitive watersheds in the Northeast,” said Dr. Driscoll.

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Copies of the studies, B-roll, photographs, and other supporting material are available from Judy Brown at: Tel. 603-653-0390 x102, jbrown@hbresearchfoundation.org or at: www.hubbardbrookfoundation.org