

NEWS RELEASE



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Notes: (1) The appended portable document file (PDF) contains the text of the entire declaration with nontechnical summaries of the principal findings. (2) The journal *Ambio* can be viewed online at <http://ambio.allenpress.com/ambionline/?request=index-html>. *Ambio* subscribers can view the entire issue; others may view only the abstracts. (3) Additional information about the Madison conference—including unedited, full-length videotapes of all four panel presentations—is available at www.mercury2006.org.

Mercury Contamination of Fish Warrants Worldwide Public Warning

MADISON, Wis. (8 March 2007)—The health risks posed by mercury-contaminated fish are sufficient to warrant issuing a worldwide general warning to the public—especially children and women of childbearing age—to be careful about how much and which fish they eat.

That is one of the key findings comprising “The Madison Declaration on Mercury Pollution” published today in a special issue of the internationally respected science journal *Ambio*.

Developed at the Eighth International Conference on Mercury as a Global Pollutant last August in Madison, Wisconsin, the declaration is a synopsis of the latest scientific knowledge about the danger posed by mercury pollution. It presents 33 principal findings from five synthesis papers prepared by the world’s leading mercury scientists and published in the same issue of *Ambio*. The declaration and supporting papers summarize what is currently known about the sources and movement of mercury in the atmosphere, the socioeconomic and health effects of mercury pollution on human populations, and its effects on the world’s fisheries and wildlife. Five other major findings in the declaration were:

- On average, three times more mercury is falling from the sky today than before the Industrial Revolution 200 years ago as a result of the increasing use of mercury and industrial emissions.
- The uncontrolled use of mercury in small-scale gold mining is contaminating thousands of sites around the world, posing long-term health risks to an estimated 50 million inhabitants of mining regions. These activities alone contribute more than 10 percent of the mercury in Earth’s atmosphere attributable to human activities today.
- Little is known about the behavior of mercury in marine ecosystems and methylmercury in marine fish, the ingestion of which is the primary way most people at all levels of society worldwide are exposed to this highly toxic form of mercury.

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- Methylmercury exposure at present levels constitutes a public health problem in many parts of the world.
- Methylmercury levels in fish-eating birds and mammals in some parts of the world are reaching toxic levels, which may lead to population declines in these species and possibly in fish populations as well.

“The policy implications of these findings are clear,” said Dr. James Wiener, a Wisconsin Distinguished Professor at the University of Wisconsin-La Crosse who served as technical chair for last summer’s conference. “The declaration and detailed analyses presented in the five supporting papers clearly show that effective national and international policies are needed to combat this global problem.”

Published by the Royal Swedish Academy of Sciences, *Ambio* (www.ambio.kva.se) is widely recognized as an important international forum for debate on scientific, social, economic and cultural issues affecting the human environment.

Wiener said the Madison Declaration summarizes a year-long effort by many of the world’s leading mercury scientists, assembled into four expert panels, to review and synthesize the major mercury science findings. Every member of all four scientific panels endorsed the declaration, he said. Wiener added that all 1,150 participants at the conference were invited to express their confidence in the experts’ findings, and the vast majority of those who did so agreed with the experts’ conclusions.

Other major findings in the declaration include:

- Increased mercury emissions from developing countries over the last 30 years have offset decreased emissions from developed nations.
- The mercury deposited in areas downwind of major industrial sources of oxidized mercury tends to be predominately mercury from a human source rather than natural sources.
- There is now solid scientific evidence of methylmercury’s toxic health effects, particularly to the human fetus.
- New evidence indicates that methylmercury exposure may increase the risk of cardiovascular disease, particularly in adult men.
- Increasing mercury concentrations are now being found in a number of fish-eating wildlife species in remote areas of the planet.
- The actual socioeconomic costs of mercury pollution are probably much greater than estimated because existing economic analyses don’t consider mercury’s impacts on ecosystems and wildlife.
- The concentration of methylmercury in fish in freshwater and coastal ecosystems can be expected to decline with reduced mercury inputs; however, the rate of decline is expected to vary among water bodies, depending on the characteristics of a particular ecosystem.

Besides Wiener, conference organizers included James Hurley of the University of Wisconsin-Madison Sea Grant Institute, David Krabbenhoft of the U.S. Geological Survey and Christopher L. Babiartz of the UW-Madison Water Science & Engineering Laboratory. UW Sea Grant, USGS and UW-La Crosse were among the major sponsors of the 2006 conference.