News Release

Date: August 19, 2009
Barbara Scudder (USGS), bscudder@usgs.gov, (608) 821-3832
Jennifer LaVista (USGS), jlavista@usgs.gov, (703) 648-4432

Study Reveals Mercury Contamination in Fish Nationwide

WASHINGTON, D.C. – Scientists detected mercury contamination in every fish sampled in 291 streams across the country, according to a U.S. Geological Survey study released today.

About a quarter of these fish were found to contain mercury at levels exceeding the criterion for the protection of people who consume average amounts of fish, established by the U.S. Environmental Protection Agency. More than two-thirds of the fish exceeded the U.S. EPA level of concern for fish-eating mammals.

“This study shows just how widespread mercury pollution has become in our air, watersheds, and many of our fish in freshwater streams,” said Secretary of the Interior Ken Salazar. “This science sends a clear message that our country must continue to confront pollution, restore our nation’s waterways, and protect the public from potential health dangers.”

Some of the highest levels of mercury in fish were found in the tea-colored or “blackwater” streams in North and South Carolina, Georgia, Florida and Louisiana — areas associated with relatively undeveloped forested watersheds containing abundant wetlands compared to the rest of the country. High levels of mercury in fish also were found in relatively undeveloped watersheds in the Northeast and the Upper Midwest. Elevated levels are noted in areas of the Western United States affected by mining. Complete findings of the USGS report, as well as additional detailed studies in selected streams, are available online.

For a national listing of fish advisories from the Environmental Protection Agency, click here.

Mercury, a neurotoxin, is one of the most serious contaminants threatening our nation’s waters. The main source of mercury to natural waters is mercury that is emitted to the atmosphere and deposited onto watersheds by precipitation. However, atmospheric mercury alone does not explain contamination in fish in our nation’s streams. Naturally occurring watershed features, like wetlands and forests, can enhance the conversion of mercury to the toxic form.
methylmercury. Methylmercury is readily taken up by aquatic organisms, resulting in contamination in fish.

“This study improves our understanding of where mercury ends up in fish in freshwater streams,” said USGS scientist Barbara Scudder. “The findings are critical for decision-makers to effectively manage mercury sources and to better anticipate concentrations of mercury and methylmercury in unstudied streams in comparable environmental settings.”

The USGS studied mercury contamination in fish, bed sediment and water from 291 streams across the nation, sampled from 1998 to 2005. Atmospheric mercury is the main source to most of these streams — coal-fired power plants are the largest source of mercury emissions in the United States — but 59 of the streams also were potentially affected by gold and mercury mining. Since USGS studies targeted specific sites and fish species, the findings may not be representative of mercury levels in all types of freshwater environments across the United States.

All 50 states have mercury monitoring programs, and 48 states issued fish-consumption advisories for mercury in 2006, the most recent year of national-scale reporting to the EPA. The EPA regulates mercury emissions to air, land and water. In February 2009, the EPA announced that it intends to control air emissions of mercury from coal-fired power plants by issuing a rule under the Clean Air Act.

For a podcast regarding today’s announcement, click here.

###