

Nation's Top Scientists Meet for First U.S. Nitrogen Assessment

*Nitrogen helps feed the world, but creates an invisible spill that threatens health & environment
May 18, 2010 in Boulder, CO*

Dear Reporter,

For 20 years, scientists have called nitrogen pollution the biggest environmental disaster no one's heard of. But that's changing as nitrogen's impacts spread, from nitrate-contaminated drinking water and unhealthy air to climate change. On May 18-20, the nation's top nitrogen scientists will be tackling how to manage the life-giving element: taking advantage of nitrogen fertilizer's benefits without polluting our environment and damaging our health.

The National Science Foundation is sponsoring a first-time meeting of over 35 leading scientists from the fields of health, agriculture, air quality, forestry and the environment to begin creating an assessment of nitrogen in the United States. The aim is to provide policymakers with consensus-based science on the consequences of increasing nitrogen pollution. **For interviews with lead scientists, see information below.**

"Nitrogen spills every day from farms, smokestacks and tailpipes into our air, water and soil," said co-organizer Eric Davidson, a Senior Scientist with The Woods Hole Research Center in Massachusetts. "The effects aren't as visible as an oil-slicked bird, but they're appearing around the U.S. as unhealthy smog, dead zones and unsafe drinking water. We're meeting this week to begin figuring out how to manage it, so we can benefit from nitrogen's use in food production without hurting our health."

The unusual diversity of scientists taking part in the assessment—from Cornell University to the USDA, NIH, and EPA—mirrors the breadth of nitrogen's impact on the planet. It contributes to human health problems, ozone layer depletion, smog, acidification of soils and water supplies, climate change, water pollution and coastal dead zones. Concern about nitrogen pollution is increasing. Last September, disruption of the nitrogen cycle topped the list of global tipping points in this Nature study <http://bit.ly/95eWNN>. Other scientists have ranked nitrogen pollution as one of the top threats to global biodiversity.

Last month, Colorado made headlines with its collaborative effort to cut nitrogen oxide emissions from coal-fired power plants through the Clean Air Clean Jobs Act. Nitrogen pollution's impact on Colorado's iconic alpine lakes has been well documented, as reported in this AP article <http://bit.ly/9TIYDd>. Though efforts are also underway to safeguard Chesapeake Bay and the Gulf of Mexico from nitrogen pollution, there is no national effort to manage it. Most nitrogen pollution comes from chemical fertilizer use; other sources include inadequate sewage treatment, animal manure and smokestack and tailpipe emissions.

"Colorado has shown real leadership in addressing one aspect of nitrogen pollution—dirty air laden with nitrogen oxide—through the Clean Air Clean Jobs Act," said University of Colorado ecology and evolutionary biology Professor Alan Townsend, one of the event co-organizers. "But the problem is so far-reaching it demands even more coordinated action."

Managing nitrogen requires coordinated action based on good scientific information, especially given the element's quick-changing nature: reactive nitrogen moves easily through the atmosphere, from water to air and back to plants. "A single new atom of reactive nitrogen can bounce its way around these widespread environments, like a felon on a crime spree," Townsend said. "The assessment can tell us where the nitrogen hotspots are and how to reduce its release."

For more information about the assessment agenda and/or to set up interviews with individual scientists, please contact Penelope Whitney at Penelope@resource-media.org, or 415-397-5000 x 313. In addition, scientists will be available for in-person interviews at the event from 12-1pm on Tuesday, May 18 at the Millennium Harvest House Boulder, 1345 Twenty-Eighth Street, Boulder, Colorado.

To download photos of Colorado lakes affected by nitrogen pollution that were documented in the study mentioned above, go to <http://bit.ly/d0Bcsa>

To view brief video interviews of scientists at the event (starting May 19) visit <http://www.nitrogennews.com/>

Contact info:

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- Alan Townsend, Professor, University of Colorado-Boulder, co-organizer, can speak to health and environment effects of nitrogen in Colorado and the U.S.
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- Jill Baron, US Geological Survey, can speak about nitrogen's impact on high elevation ecosystems and biodiversity, 970-217-8949

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