



The Durham Engineers Club Cordially Invites You
to our April 18, 2013 Meeting

Featuring our guest speaker

Rose M. Cory, Ph.D

*Associate Professor in the
Department of Environmental Sciences and Engineering
at the University of North Carolina*

Her presentation will be about ...

**Turning on the Lights: Sunlight Stimulates CO2
Release from Permafrost Soil in the Arctic**

[Register Now!](#)

You can now prepay with a credit card or PayPal account as you register!

This meeting will begin at 6:00pm.



When

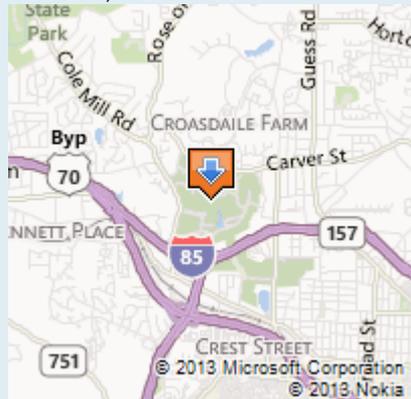
Thursday April 18, 2013 from
6:00 PM to 8:00 PM EDT

[Add to Calendar](#)

Where

Croasdaile Country Club

3800 Farm Gate Avenue
Durham, NC 27705



[Driving Directions](#)

Dear Fellow Professional :

Please consider our special invitation to attend our regular monthly meeting Thursday, April 18th from 6:00 to 8:00 pm.

The Arctic tundra is sinking. Landslides and sinkholes the size of football fields dot the landscape.

"If there were houses and roads and buildings up there, people would be freaking out," says Rose Cory, an environmental scientist at UNC. We'd be clamoring for reasons why the earth is swallowing our infrastructure. Cory could provide answers. And she could also tell us why we should be very concerned no matter where we live.

For years, climate scientists haven't included the melting permafrost in their climate change models. Now, the big thaw is on. Permafrost is adding CO₂ to the atmosphere. But Cory discovered that there's more to the equation-those landslides and sinkholes are exposing once-frozen carbon to sunlight and adding more CO₂ to the atmosphere than scientists had ever suspected.

On the colder side of Alaska's north slope, 460 miles north of Fairbanks, Cory sets up shop each summer at the

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U.S. Arctic Long Term Ecological Research site. She arrives before May 1 so she doesn't miss the annual freshet-when snow and ice melt within a few days and lay bare the brown tundra.

Once on site, she can see how the release of ancient carbon affects the water. Streams turn golden-brown. Viewed from above, some lakes turn light blue from the influx of carbon. "It's like when you put a tea bag in hot water," she says. The chemical components of the tea plant dissolve and gives the water color.

Cory says that the Arctic permafrost contains more than twice the amount of carbon currently in the atmosphere. "But that carbon has been frozen for thousands of years, so it hasn't participated in the carbon cycle," she says. "With the earth getting warmer, that's all changing."

Dr. Cory has a PhD in Environmental Engineering from the University of Colorado, Boulder in 2006 where she started her work in the Arctic under the guidance Professor Diane McKnight at the Institute of Arctic & Alpine Research (INSTAAR). Following a postdoctoral research appointment at the University of Minnesota-Twin Cities between 2006-2008 to learn aquatic photo-chemistry with Professors Kris McNeill and James Cotner, she received a Los Alamos National Laboratory Postdoctoral Fellowship from 2008-2009. Since 2009, she has been an Assistant Professor of Environmental Sciences & Engineering at UNC.

Please click on the link below to register; the cost to attend is \$25 for members and \$35 for non-members. You can now pre-pay as you register with a credit card or PayPal account, mail a check, or pay at the door with cash or check. We cannot accept credit cards at the event.

The price includes a buffet dinner at the Croasdaile Country Club. The buffet features an extensive salad bar, and a variety of hot dishes; the food is excellent. Social hour is from 6:00 to 6:30 pm and there is a cash bar. Dinner is from 6:30 to about 7:00 and the seminar will begin about 7:00, the presentation will be about an hour followed by Q&A.

One (1.0) PDH will be provided; a terrific bargain! Please join us for this great presentation by clicking on the "Register Now" link below, if you cannot attend please let us know as well, and feel free to forward this invitation to as many others as you would like using the button below.

[Register Now!](#)

[Forward to a Friend!](#)

[I can't make it](#)

If you do not wish to continue to receive event invitations from the Durham Engineers Club please unsubscribe using the link at the bottom. The Durham Engineers Club has one meeting per month.

We look forward to seeing you at the meeting!

Sincerely,

Michael M. Hughes, PE
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