

IMMEDIATE PRESS RELEASE

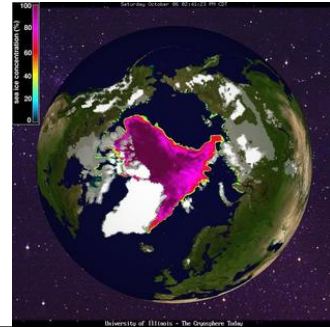
DRAFT

## **STEM ED FUNDED TO BRING THE POLAR REGIONS INTO 7-12 GRADE CLASSROOMS DURING THE IPY**

Not a day goes by that we hear news reports that the polar regions are changing, warming up faster than the rest of the world due to the accumulation of greenhouse gases in our Earth's atmosphere. The easiest visual way to observe this is to look at the shrinking extent of summer sea ice, with this September setting a new record. So what do changes in the polar regions have to do with us, who live in the lower latitudes far from sea ice and melting glaciers? Why should we care?

These questions and others are precisely the focus a newly funded 3-year curriculum development and professional development program entitled *STEM Polar Connections: A three region initiative to integrate the study of Polar Regions and activities associated with the International Polar Year (IPY) into the middle and high school curriculum* under the umbrella of the UMass-Amherst's Science, Technology, Engineering and Mathematics (STEM) Education Institute and Dept of Geosciences' Climate System Research Center (CSRC). With a grant from the National Science Foundation Education and Human Resources program for \$597k, scientists and engineers involved with polar research are planning residential summer workshops with academic year on-line communication for in-service teachers who are involved in the professional development of their colleagues. During each summer institute, teachers will be introduced to sets of STEM Polar Connections Modules that will emphasize the process of scientific inquiry and explore a variety of proven techniques for effective teaching, including inquiry-based teaching, cooperative learning, and methods for formative assessment of student learning. The summer workshops at UMass will be designed to advance the knowledge that STEM teachers have of the characteristics of and processes that occur in Polar Regions so that they can effectively field test curriculum modules and disseminate final versions of the modules at the local, regional, and national level.

"This is a wonderful synergy between our STEM efforts and polar researchers on our campus", remarked Mort Sternheim, Director of the STEM Education Institute at UMass. Other researchers involved in the project include Julie Brigham-Grette and Ray Bradley, Dept of Geosciences, Paul Siqueira, Dept of Electrical and Computer Engineering, STEM Ed staff involved in the project include science teacher Rob Synder, post-doc Kate Devlin, English teacher Holly Hargraves, and environmental educator Marie Silver.



*Record setting minimum summer sea ice extent in September, 2007 (picture courtesy of Univ Illinois-Urbana Polar research group).*