



Third Annual Conference for GIS Educators in Maine

Friday, November 19, 2010 ~ 9:30am to 4:30pm
Augusta Civic Center, Augusta Maine

Conference Program

Visit the conference website to view streaming video and download session materials: <http://megischamps.org!>

This conference is funded, in part, by the National Science Foundation (Award #0802417) as a component of a three-year project designed to improve and promote geospatial technology education in Maine.

Additional help for this project comes from the Maine GIS User Group, Maine International Center for Digital Learning, Maine Community College System, University of Maine System, University of Maine at Machias, University of Southern Maine, Maine 4H Extension, Maine Geographic Alliance, Blue Marble Geographics, Esri, and many other.





**Third Annual Conference
GIS Educators in Maine
Friday, November 19, 2010 9:30am to 4:30pm, Augusta Civic Center, Maine**

Conference Agenda at a Glance
All Sessions are in the Augusta Civic Center, 2nd Floor

8:30 – 9:30	Registration, Coffee & Snacks in Washington/York; Poster Set-up in Sagadahoc		
PLENARY SESSION <i>Washington/York</i>			
9:30 – 10:00	Welcome, Opening Remarks & Update on GIS Happenings in Maine		
10:00 – 10:15	Break		
BREAKOUT SESSIONS			
10:15 – 11:30	K12 Track <i>Washington/York</i>	K12 Track <i>Sagadahoc</i>	Higher Ed Track <i>Piscataquis</i>
	<u>Workshop</u> : GPS to GIS (Mac) V V V V	<u>Workshop</u> : Online GIS Tools for the Classroom (Mac) V V V V	<u>Presentation</u> : College/Community Partnerships (10:15-10:50) <u>Presentation/ Discussion</u> : Articulation Agreements (10:55-11:30)
PLENARY SESSION <i>Washington/York</i>			
11:30 – 12:30	Lunch & Keynote Address "Visual Analysis: Sailing the Seas of Information" - Roger & Anita Palmer		
12:30 – 1:00	Poster Session <i>Sagadahoc</i> Vote for your favorites student posters!		
BREAKOUT SESSIONS			
1:00 – 2:15	K12 Track <i>Washington/York</i>	Both Tracks <i>Sagadahoc</i>	Higher Ed Track <i>Piscataquis</i>
	<u>Workshop</u> : Pictures & Points with Google Fusion, Picasa & Google Earth (Mac; 1:00-1:35) <u>Presentation</u> : Sailing to Buy a Wedding Dress: Using GIS in the Classroom (1:40-2:15)	Poster Voting Continues V V V V V V	<u>Workshop</u> : Coordinate Systems (PC with ArcGIS) V V V V V
2:15 – 2:30	Break		
2:30 – 3:45	K12 Track <i>Washington/York</i>	K12 Track <i>Sagadahoc</i>	Higher Ed Track <i>Piscataquis</i>
	<u>Workshop</u> : GPS to GIS (Mac) V V V V V	<u>Workshop</u> : Online GIS Tools for the Classroom (Mac) V V V V V	<u>Presentation</u> : Basic Remote Sensing with ArcGIS 10 (PC; 2:30-2:55) <u>Roundtable Discussion</u> : How can higher ed help pre-service teachers get geospatial? (3:00-3:45)
PLENARY SESSION <i>Washington/York</i>			
3:45 – 4:15	Poster voting results & prizes; What's next in GIS Ed?		
4:15 – 4:30	Poster/Table Clean-up & Farewell		
<i>We'll be contacting you after the conference with a survey about your conference experience. Please take the time to help us make next year's conference even better!</i>			



Third Annual Conference for GIS Educators in Maine Conference Sessions

9:30 – 10:00 PLENARY SESSION *Washington/York*

Welcome, Opening Remarks & Update on GIS Happenings in Maine

BREAKOUT SESSIONS

10:15-10:50 *Piscataquis*

(HE Presentation) College-Community Partnerships: Preparing your studies to work on community based projects through courses, independent studies and internships

Eileen Johnson, Bowdoin College, Brunswick, Maine

As part of its community based programs, Bowdoin College partnered with two local land trusts in support of the land trusts' strategic planning processes. A community based project was developed as part of a one semester "Introduction to GIS" course. Students worked on teams to develop components of the land trusts' strategic planning and focused on landscape connectivity, agricultural land preservation, conservation based affordable housing initiatives, and trail mapping and development. During the spring semester, three students continued their work, focusing on developing three separate models for the purpose of habitat prioritization, agricultural land prioritization, and conservation based affordable housing prioritization. In order to build the capacity of the organizations to best utilize the information, student interns were placed with the organization during the summer of 2010 and helped the two land trusts develop their GIS capacity. As a result both land trusts have successful GIS programs, have drawn upon the work of the students to submit applications for funding of agricultural easements identified through the analysis, and have laid the foundation for their strategic conservation plan. The learning outcomes for the students has been to understand how to help organizations identify spatial needs, build their GIS capacity and translate their priorities into a strategic plan.

10:55-11:30 *Piscataquis*

(HE Presentation) Helping Students Climb Higher: Forging Articulation Agreements among College and University GIS Courses & Programs

Tora Johnson, University of Maine at Machias

Students in Maine often have difficulty transferring their GIS courses from one college or university to another and sometimes forgo further education because of this stumbling block. An effective way to improve student mobility through the educational system can be articulation agreements that ensure seamless transfer of courses from one institution to another. This presentation will cover the various types of articulation agreements, reasons for pursuing them, potential barriers to successful articulation efforts, and strategies that can help lead to effective articulation.

10:15-11:30 *Washington/York*

(K12 Workshop) GPS to GIS

Anita Palmer and Roger Palmer, GISetc.

In this workshop, we will introduce participants to GPS technology and basic field data collection techniques, using Garmin eTrex GPS receivers (or bring your own) to make and record observations near the conference center. The recorded observations will be turned into a simple database and mapped using free software that is compatible with MLTI laptops. * *Space is limited, but this workshop will be offered again at 2:30*

10:15-11:30 *Sagadahoc*

(K12 Workshop)

Free Web-Based GIS Tools for the Classroom

Charlie Fitzpatrick, Co-Manager, Esri Schools Program

In this hands-on workshop, participants will learn to use free, browser-based GIS tools to create maps, explore data, and meet state and national learning standards. You will learn how to create your own maps for class tomorrow, choosing from a multitude of high resolution base maps, a limitless variety of hosted GIS data, and your own content makers with images, text, and more. We'll even explore how you can create and share your content with students and other educators. * *Space is limited, but this workshop will be offered again at 2:30*

9:30 – 10:00 PLENARY SESSION *Washington/York*

Lunch & Keynote Address

"Visual Analysis: Sailing the Seas of Information"

Keynote Speakers: Roger & Anita Palmer

Roger Palmer taught high school chemistry, physics, environmental and field science and is currently teaching and developing curriculum for the Texas Earth System Science course. He has been involved with NASA initiatives using remote sensed imagery to teach math, science, and geography to K-12 students. He holds an M.S. in Chemistry and conducts research projects in the use of GIS to model integrated approaches to environmental problems.

Anita Palmer taught middle and high school technology and social studies. Anita is co-author of the original "Mapping Our World: GIS Lessons for Educators," and of the Teacher's Guide to accompany the book, "Community Geography: GIS in Action!" She is an active member of Texas Alliance for Geographic Education and Geography Educators of Metroplex in Texas and a teacher consultant in the Geographic Alliance in Nevada. She was inducted into the Geographic Alliance in Nevada Hall of Fame in 2004.

Anita and Roger are co-authors of the newly released "Mapping Our World" and "Analyzing Our World," as well as the GPS activity book "Going Places with GPS." Both were members of the development team for the National Council for Geographic Education's "Birdseye View" primary school curriculum, and both helped develop and teach the Eastern Michigan University GIS Masters Certificate program for educators.

Together and separately Roger and Anita have conducted hundreds of teacher institutes, courses, and camps for students in the USA and in the international arena over the past ten years. Their Dallas-based company, GISetc, provides cutting-edge GIS professional development, curriculum and software support to K-12 and post-secondary educators and students.

12:30-1:00 Poster Session *Sagadahoc*

Vote for your favorites student posters! Voting will continue throughout the afternoon.

BREAKOUT SESSIONS

1:00-2:15 *Piscataquis*

(HE Workshop) Details that Matter: How Coordinate Systems Affect Measurements in GIS

Sam Knight and Elizabeth Teret, Blue Marble Geographics

One of the basic foundations of a mapping project is often overlooked at the outset of the project. The selection of the coordinate reference system is a key decision that affects the geometry of the map itself as well as any measurements that are made from it. Looking at examples of different measurements within the same area, this workshop will focus on the significance of geodetically-based coordinate reference systems and how an improper selection for an area can negatively affect the results of any analysis or positioning done using that map, especially when that data is taken into the real world. We will explore various distortions between different base horizontal datums, grid projection concepts such as scale factor and convergence, as well as the significance of changing or transforming those models within the GIS project. These exercises will be completed in ArcGIS (Windows platform), with public data sourced from the Maine GeoLibrary website. Data will be provided on CD handouts.

1:00-1:35 *Washington/York*

(K12 Mini-Workshop) Using Google Fusion to Link Pictures to GPS Points in Google Earth

Ginny Brackett and MJ Stafford, Winslow (ME) Junior High School

At Winslow Jr. High School, we do some geocaching, and we have students create Google Tours and make a map of the geocache sites. Our newest project is to have students use a Google Fusion table to create a KMZ file of the cache sites so that when the file is opened in Google Earth, the balloon for each location will include a picture and text. In this hands-on presentation, we will walk participants through the Google Fusion process. We will provide pictures on Picasa and points for participants to use in the exercise so that when they are finished they will have created a KMZ file that opens in Google Earth. Participants will need a Google account, a Picasa account, and a laptop with Google Earth (some laptops will be available for participants to use at the workshop).

1:40-2:15 *Washington/York*

(K12 Presentation) Sailing to Buy a Wedding Dress: Using GIS in the Classroom to Geohistorical Inquiry
Margaret Chernosky, Geography and GIS Teacher, Bangor High School

This presentation will show how to do geohistorical inquiry in the classroom with GIS to achieve learning standards. Focusing on the example of an activity in which students map the journey of the two masted, coastal schooner *Industry* in 1868 from her departure from a small Nova Scotia harbor to her sinking in the North Atlantic, the continuing journey of the fortunate crew and passengers to London, then their return across the Atlantic back to Nova Scotia. The location of the boat's sinking is unknown, but using GIS and clues from the primary documents, wind and current direction, ice margins and storm tracks; students try to recreate the journey and the final ocean grave of the schooner *Industry*.

2:30-2:55 *Piscataquis*

(HE Presentation) Basic Remote Sensing with ArcGIS 10 *Tora Johnson, University of Maine at Machias*
NASA has recently made all Landsat imagery from 1982 to the present free and available for download, and the latest version of ESRI ArcGIS includes image analysis functionality. In this talk, we'll walk through a basic hands-on exercise using Landsat imagery of Maine using the new tools in ArcGIS 10.

3:00-3:45 *Piscataquis*

(HE & K12 Roundtable Discussion) How can Maine's institutions of higher education help pre-service teachers get geospatial?

2:30-3:45 *Washington/York*

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Augusta Civic Center
Second Floor Meeting Rooms

