

Wisconsin Weather Stories

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Wisconsin Weather Stories is a one-year project out of the University of Wisconsin-Madison that will run from May 2003 through June 2004. It will allow five Wisconsin teachers to work with

folklorists and atmospheric scientists on the science and stories of Wisconsin weather.

Professional and undergraduate scientists and folklorists based in Madison and local teachers from across the state will draw from local stories and meteorological data to create a curricula that meets academic standards in Science, English Language Arts, and the Social Studies. The curricula will be posted on three websites at the end of the project, available for free use by the public.

The specific goals of the project are to explore the relationship between verbal art, local culture and weather science; develop high-quality teaching tools so that K-12 classes can do the same; provide training to meteorology students in conveying weather concepts to non-specialists and training to folklore students in conveying narrative collection techniques and analysis to non-specialists; and spread the story of Wisconsin's role in the development of satellite meteorology.

Stories are an excellent way to approach the science of weather. People tell stories about weather all the time, about both the effects of weather and their methods for predicting weather. Meteorologists tell stories of chasing tornadoes and tracking storms, thereby conveying information about how they study weather.

The range of stories and lore on which this project focuses is broad--stories about historic events such as the June 18 2001 tornado in Siren WI, sayings about regular seasonal events, traditional expressions or proverbs about weather,

observations people use for deciding where and when to catch fish, hunt deer, or plant potatoes, and stories of Wisconsin weather scientists. We look for stories that are told especially well, in order to understand the art of storytelling. We look for stories that highlight traditional life in Wisconsin, in order to understand the cultural basis of storytelling. We look for stories that illustrate particular weather principles, in order to understand the science behind the stories.

The Madison-based partners and the K-12 teachers and their students collected Wisconsin weather stories during the summer and fall of '03. Then we analyze them. The scientific analysis included: reading weather maps, analyzing local variables such as temperature, moisture, cloudiness, and precipitation, analyzing concurrent larger weather systems, graphing weather reports, and making weather observations. The folkloric analysis included: identifying the traditional elements in the story related to place, ethnicity, beliefs, occupation, gender and other factors. The artistic analysis included: identifying the artistic elements in the telling of the narrative such as use of pitch, intonation, timing; and evaluating effectiveness of the narrative for communicating ideas. With guidance from the project directors, the two atmospheric science and three folklore undergraduate students who are part of the year-long project compiled these analyses into units useable by K-12 teachers.

Participating teachers were selected from a pool of applicants. They are:

*Russ Bailey, 7th grade science teacher at Northwestern Middle School in Poplar, WI,

*Teyulelu Cornelius, K-12 Gifted & Talented Coordinator at Oneida Nation School in Oneida, WI,

*Mary Kornely, 4th grade teacher at Denmark Elementary School in Denmark, WI,

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*Karyl Rosenberg, science teacher at Nicolet High School in Glendale, Wisconsin, and

*Mary Jo Fuhry, science teacher at Indian Community School in Milwaukee, WI.

These five energetic and enthusiastic Wisconsin teachers met in Madison in August 2003 to meet the Madison team, learn more about the project and brainstorm on how best to collect weather stories with their students during the school year. The workshop included lectures on project philosophy, local culture, narrative and a presentation by elementary school teacher and folklorist Mark Wagler from Randall School in Madison. There were instructive sessions illustrating how to conduct interviews, do fieldwork and access weather resources. CIMSS webmaster Leanne Avila unveiled the project web page and led a discussion on content and accessibility

http://cimss.ssec.wisc.edu/wi_weather_stories/.

The teachers also evaluated two units the Madison team had developed: one on the deadly 1911 Armistice Day storm as vividly told in a personal experience story by Wisconsin duck hunter Harold Hettrick, and one on the saying, "Wind from the west, fish bite the best. Wind from the east, fish bite the least." Project team leaders encouraged the folklore and atmospheric science undergraduate students to lead sections of the workshop.

Over the 2003-04 academic year the K-12 teachers will:

- fieldtest two curriculum units on Wisconsin weather science and stories,
- lead their students in collecting and analyzing local weather stories,
- send the stories their K-12 students collect and analyze to the UW students, who will post the materials to the three partner websites.
- attend a work session in Madison in June 2004 to refine the developed curricula and website.

During the fall and spring semesters, the UW students will create two additional curriculum units. One will feature occupational stories told by scientists in CIMSS and the Department of Atmospheric and Oceanic Sciences. The other unit will feature stories of Vernor Suomi as the "Father of Satellite Meteorology."

The Wisconsin Weather Stories project is primarily funded through the Ira and Ineva Reilly Baldwin Wisconsin Idea Endowment. This endowment is intended to support the Wisconsin Idea, which means extending the reach of the university to all corners of the state. The Wisconsin Weather Stories project expands the Wisconsin Idea in numerous ways: by providing research-based expertise to educational institutions, advancing science education and scientific literacy, promoting understanding of local cultures through the arts and humanities, fostering K-12 and postsecondary educational partnerships, and fostering the academic development of pre-collegiate youth. It extends the resources of the University by applying expertise in weather and narrative studies to audiences beyond UW. It strengthens the unique partnership that the Wisconsin Arts Board, a state agency, has with the UW's Folklore Program and CIMSS. It integrates knowledge by combining science with the arts and humanities. It fosters e-learning, since many activities will be web-based, and expands access to lifelong learning since many of the users of WAB's website are out-of-school adults.

The project leaders in the *Wisconsin Weather Stories* are:

Dr. Steven A. Ackerman, professor in the Department of Atmospheric and Oceanic Sciences (www.aos.wisc.edu), and director of the Cooperative Institute for Satellite and Meteorological Studies (www.cimss.ssec.wisc.edu). He is familiar to many Wisconsin residents through his monthly call-in weather show on Wisconsin Public Radio.

Dr. James P. Leary, professor in the Department of Scandinavian Studies, director of the Folklore Program (www.folklore.wisc.edu), and co-director of the Center for the Study of Upper Midwestern Cultures (www.csumc.wisc.edu). He is familiar to many Wisconsinites through his entertaining and informative books on Wisconsin folklore.

Dr. Anne Pryor, Folk Arts Education Specialist at the Wisconsin Arts Board, the state agency responsible for the support of the arts in Wisconsin. She is familiar to many Wisconsin educators through the website she produces, *Wisconsin Folks* (www.arts.state.wi.us).

Margaret Mooney, meteorologist and outreach specialist with UW's Office of Space Science Education, is the project manager.

The UW students in the project are Holly DeRose and Kristopher Karnauskas in atmospheric science, and Louie Holwerk, Claire Schmidt, and Jamie Yuenger in folklore.

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