

**Nebraska Earth Science and Education Network  
and  
Laboratory Earth Alumni Association  
NEWSLETTER  
April 2009**

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**Topic 1. Workshop**

Dr. Jun Wang, UNL, is teaching a workshop titled “View Atmosphere from Space”.

**Topic 2. Earth Science Sites of the Week.**

Earth Science Sites of the Week are a great collection of websites and online tools ranging in topics like Geosphere, Hydrosphere, Space, Teaching, and a few others compiled by. They are compiled by Professor Mark Francek at Central Michigan University. We print a small portion of it, and include a link to the full [pdf](#) on the NESEN website.

Go here for a continually updated archive - <http://groups.google.com/group/earth-science-sites-of-the-week>

To be added to the mailing list email Dr. Mark at -mark.francek@cmich.edu

**Topic 3. Earth Portal News Updates**

This is the most recent version of the weekly newsletter about the growing resources of Earth Portal, and its sites and information. The full version is posted on our website as a [pdf](#).

**Topic 4. Miscellaneous Resources**

Find up-to-date science news, projects, competitions, tools, or other tid-bits we may hear about. In this newsletter, we mention “Earth Under Fire: How Global Warming is Changing the World”, “Top Stars”, and AGI’s announcement of the Earth Science Week theme for 2009.

**1. Workshop -View Atmosphere from Space – A Summer Workshop for Middle/High School Teachers, June 23-24, 2009, Lincoln, NE**  
**June 23-24, Lincoln, NE**

Free Registration: Deadline: May 1<sup>st</sup>, 2009

‘View Atmosphere from Space’ will provide an introduction of NASA’s satellite view of weather and climate to approximately 15 Nebraskan middle/high-school teachers. Participants will receive NASA educational resources, examine NASA satellite imagery, learn about NASA’s Earth observation systems, learn about programs encouraging student/teacher participation in science, and interact with NASA scientists and other participants to find ways to integrate NASA satellite observation and research into their curriculum. Each participant will receive a \$100/day stipend to cover travel costs, and free lunch and lodging. For more information and to register, contact Dr. Jun Wang at [jwang7@unl.edu](mailto:jwang7@unl.edu).

**2. Earth Science Sites of the Week Articles**

\* **SEISMIC WAVES PROGRAM.** The Seismic Waves program shows the propagation of the earthquake waves on a globe and the seismogram record at various stations around the world. “Seismic Waves is a Windows program which illustrates how wave propagate from an earthquake hypocenter to seismic stations throughout the earth. One sees waves propagating out from the epicenter on a three-dimensional view of the earth at the same time one sees waves propagating through a cross-sectional view of the earth. These two wave propagation views are synchronized with actual event waveforms so that as a particular phase arrives at a station, one sees the effect on the seismogram.” <http://pods.binghamton.edu/~ajones/#Seismic%20Waves>

\* **KINESTHETIC ASTRONOMY.** Nora’s comments: “I use kinesthetic astronomy. They have two strands. One is for primary, the other is for middle/high school. Everything is downloadable and uses common items. The activities can be done in the classroom, a small gym or outside. They even include "props" needed for the lesson. I have used this since it came out and my students really learn. They have teacher background information that allows those with weak background can ask and answer the right questions to develop student knowledge. “ Site description, “Through a series of simple body movements, students gain insights into the relationship between time and astronomical motions of Earth (rotation about its axis and orbit around the Sun) and about how these motions influence what we see in the sky at various times of the day and year. The lesson can be applied to understand the times of day and year on other planets (e.g. Mars). The lesson can be taught with or without an emphasis on the reasons for seasons.” <http://astrosun2.astro.cornell.edu/outreach/node/174>

\* **TEACHING CLIPS.** “Teachers’ Domain is an online library of more than 1,000 free media resources from the best in public television. These classroom resources, featuring media from NOVA, Frontline, Design Squad, American Experience, and other public broadcasting and content partners are easy to use and correlate to state and national standards. <http://www.teachersdomain.org/>

**3. Earth Portal**

**ENVIRONMENT IN FOCUS** – This week Dr. Golubiewski discusses the different aspects in which species can affect the ecosystems of which they are a part. Do not forget to explore top related websites and supplementary reading among other features in this week’s Environment in Focus.

Wikipedia with quality control. Among our most recently published and updated articles are:

- [Insular Pacific-Hawaiian large marine ecosystem](#) from the National Oceanic and Atmospheric Administration
- [John Biscoe](#) by Dr. Peter Saundry
- [Uniformitarianism](#) by Dr. Michael Pidwirny

### **EARTH FORUM –**

Have you ever wanted to pick the brain of an expert? Well here’s your chance. Engage in discussions with experts on environmental issues – science, policy, news, local events, or any other topic of interest. Join [discussions](#) already going on:

- [Earth Day: April 22](#) by Dr. Sidney Draggan
- [Comments on Earth Day: April 22](#) by Dr. Andy Jorgensen
- [Shrinking green space](#) by EmmaWrites

### **EARTH NEWS –**

[EarthNews](#) gathers news from various sources to give you the most up-to-date information.

Some big stories this week include:

- [Forestry must evolve to support expanded use of biomass, experts say](#)
- [Agency withheld evidence of D.C. water lead poisoning](#)
- [Trouble ahead for South Pacific Tuna Treaty](#)

Read about recent events relating to species influence on ecosystems around the globe.

- [Hemlock forest death rate faster](#)
- [Hedgerow Trees ‘Key To UK Biodiversity’](#)
- [Butterfly numbers plunge to lowest level in 25 years](#)

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Earth Portal News mailing list

<http://lists.earthportal.org/mailman/listinfo/news>

**Earth Day 2009** brings an **updated paperback edition** of  
**Earth under Fire : How Global Warming Is Changing the World**  
Written and photographed by Gary Braasch

Environmental photojournalist Gary Braasch brings to life, through vivid pictures and compelling narrative, his extraordinary 8-year journey around the world to document changes already underway to people, communities and ecosystems. In **EARTH UNDER FIRE: How Global Warming is Changing the World, Updated Edition**, he brings us along to witness firsthand what he discovered beyond the Antarctic and Arctic Circles, above 15,000 feet in the Andes, on damaged coral reefs, and in communities on the front lines of climate disruption.

Deeply researched and scientifically accurate, it offers an upbeat and intelligent account of how we can lessen the effects of our near-total dependence on fossil fuels using technologies and energy sources already available. A thorough updating and a new preface for the paperback edition bring the compelling facts about climate change up to the beginning of the new U.S. administration.

Featuring more than one hundred photographs — including dramatic before-and-after comparisons — EARTH UNDER FIRE records species, cultures, and entire ecosystems at risk due to receding glaciers, eroding coastlines, rising sea levels, and thawing permafrost. Braasch's powerful, eye-opening images show glacial retreat from the Alps to the Andes, coastal erosion threatening native villages from Alaska to Bangladesh, and other direct evidence that global warming is happening right now.

"Fortunately" writes Braasch, "there is a great deal we can do, and many of us have already begun," writes Braasch. "The shape of this change is visible already. Many people, companies, and nations...are already reducing their impact on the atmosphere."

**"Let me state the goal clearly: No policy should be promulgated, no program initiated, no alliance sealed, no purchase made, no machine designed or built, no land use permitted, no product introduced, no law passed, no politician elected unless the action is a step forward to reduction and reversal of the effect of greenhouse gases."** From the Epilog by Gary Braasch

**Earth Under Fire: How Global Warming is Changing the World** is supported on line by <http://www.EarthUnderFire.com> and by the highly ranked and information-filled website <http://www.WorldViewOfGlobalWarming.org>, established in 2002. This site is an important link to climate science, effects and actions through photojournalism, and is a leading tool for education, community action and environmental communication.

The book is also the inspiration for a children's book written with Lynne Cherry, **How We Know What We Know About Our Changing Climate** (Dawn Publications) which was named the middle grades Science Book of the Year by the American Association for the Advancement of Science, and a Science Book for Young Readers by the John Burroughs Assn

**"Top Stars:**

**Educators Invited to Submit Examples of Inspiring  
Uses of Hubble in Education.**

Top Stars Web Site: <http://topstars.strategies.org>

U.S. formal (K-12, college) and informal educators -- both individuals and teams of up to four members -- are invited to submit their best examples of using the Hubble Space Telescope in science, technology, engineering or mathematics education.

Entries will be accepted from May 2009 to January 2010, and may include any combination of text, graphics, video and photos. Selected entries will be recognized as "Top Stars."

Educators selected as Top Stars will have their entry featured on the Top Stars Web site and will receive the following recognition and awards:

\* A high-quality photo print (48" x 24") of a Hubble image; Invitation to attend via teleconference a special briefing by a Hubble scientist or engineer; and Recognition as Top Stars on NASA Web sites.

The Top Stars contest is sponsored by NASA and is a project of the Institute for Global Environmental Strategies (IGES) in Arlington, Va.

Entries will be reviewed by IGES, NASA scientists and educators, and Top Star selections will be made periodically through the contest period according to the following schedule:

Entries submitted by: May 29, 2009

Awards Announced: June 30, 2009

Entries submitted by: August 30, 2009

Awards Announced: September 30, 2009

Entries submitted by: November 30, 2009

Awards Announced: December 18, 2009

Entries submitted by: January 2, 2010

Awards Announced: January 28, 2010

In addition, the top 10 Top Stars -- as selected by IGES staff, NASA scientists and educators -- will be recognized as "Gold Stars." These educators will receive an official letter of commendation from NASA, be featured in an article on [Nasa.gov](http://Nasa.gov), be invited to present their entry to other educators nationwide over the NASA Digital Learning Network, and more.

The Top Stars Web site will begin accepting entries April 30. For more information, please visit <http://topstars.strategies.org>.

**AGI ANNOUNCES EARTH SCIENCE WEEK 2009 THEME**

Alexandria, VA – The American Geological Institute is announcing that "Understanding Climate" is the theme for the 2009 Earth Science Week.

Climate is perhaps the most visible earth science topic in the news. Climate affects humans today just as it has for millions of years. It is also pivotal in understanding how the dynamics of our planet function across different scales of time and space. Earth Science Week 2009 will engage students, educators, and the general public in understanding all the factors driving climate and the role climate plays in the history of Earth and humankind.

"Students and the general public need to understand Earth's climate system, above and beyond the sound bites of public debate," says Ann E. Benbow, AGI's Director of Education and Outreach. "Earth Science Week 2009 will provide educators, students and interested citizens with the information, resources, and activities they need for scientifically sound climate education."

AGI coordinates Earth Science Week annually in cooperation with its sponsors and the geoscience community as a service to the public. Each year, community groups, educators, and interested citizens organize celebratory events. Earth Science Week offers the public opportunities to discover the earth sciences and engage in responsible stewardship of the Earth. Earth Science Week is supported by the U.S. Geological Survey, the AAPG Foundation, and the broader geoscience community through grassroots activities.

To learn more about this week and ways to become involved; including newsletters, local events, and classroom activities, please go to the Earth Science Week website at <http://www.earthsciweek.org>.

The American Geological Institute is a nonprofit federation of 45 geoscientific and professional associations that represents more than 120,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment.

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