



Jigsaw – A technique for Student-Active Learning
Published by the **ESA Office of Education and Diversity Programs**

November 2012

Vol. 2 Issue 8

Photo Credit from EcoEdDL: A herd of alpine ibex (*Capra ibex*) struggling to move through deep snow by Luciano Ramires

What's New in EcoEdDL



Melting Glaciers on Mt. Kilimanjaro

by **Patricia Hackbarth**

These images could be used to illustrate the loss of glaciers and snow cover due to warming temperatures and loss of precipitation, especially in tropical regions.

Announcements



The Life-Discovery – Doing Science Conference

March 15-16, 2013 | St. Paul, Minnesota | www.esa.org/ldc

Explore digital resources and new technologies for data exploration and curriculum design for high school and undergraduate biology education.

NEW! Earn Continuing Education Credits

We are excited to offer conference attendees the opportunity to earn one Continuing Education Unit (CEU) for participation in the conference.

Registration is OPEN! Early Bird rates available through 12/15/2012.

Upcoming Events

FREE Climate Change Continuing Education Symposium

How Success Works: Using case studies to teach systems thinking as a way to approach eco-social problems related to climate change.
Tuesday, 3:00 EDT, December 4, 2012

[REGISTER HERE](#)

Life Discovery – Doing Science Education Conference

Inaugural Biology Education Conference
March 15 – 16, 2013 | St. Paul, MN

[REGISTER HERE](#)

American Society for Microbiology Conference for Undergraduate Educators

May 16 – 19, 2013 | Englewood, CO
Registration opens January 1, 2013

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SEEDS Update

Support for SEEDS Leadership Meeting

The [Mitsubishi Corporation Foundation](#) for the Americas has awarded ESA's *Strategies for Ecology Education, Diversity and Sustainability* (SEEDS) a grant to support its Leadership Development program. The SEEDS Leadership Meeting will be held in New Orleans, Louisiana in February 2013 at Dillard University and will focus on ecological recovery and prevention of environmental disasters.

SEEDS Undergraduate Fellowship Program

SEEDS is accepting applications for the 2013-2014 Undergraduate Fellowship opportunity (in anticipation of funding). Each fellow will receive an award valued at

more than \$12,000 to work on their research from March 2013 through August 2014. Applications are accepted through Friday, December 21, 2012. Minority students are especially encouraged to apply.

PULSE - Partnership for Undergraduate Life Sciences Education

PULSE is looking for **Vision & Change Ambassadors** to encourage the adoption of the principles and recommendations of the "Vision and Change in Undergraduate Biology Education" report. You can sign up, participate in discussion forums and post relevant events at the [Spreading the PULSE site](#).



Next Generation Science Standards

The release of the second and final public draft of the Next Generation Science Standards (NGSS) is set for the first week in January. For more information, please visit our website at www.nextgenscience.org.

Reports & Articles



ESA Bulletin (Oct. 2012)

Reflections on the Sustainable Biosphere Initiative SBI + 20 Celebration, Jane Lubchenco, Ph.D. (NOAA Administrator)

Dr. Lubchenco recalls how the SBI set ecology on a new path: stellar science in support of society and the applauds the renewal of SBI through ESA's [Earth Stewardship Initiative](#).

**Center for
Excellence
in
Education**

"Beyond Textbooks and Lectures: Digital Game-Based Learning In STEM Subjects"

This paper focuses on the growing movement of digital game-based learning and the empirical evidence surrounding new research. How digital game-based learning can benefit STEM subjects (science, technology, math, and science), simulate intricate, real-world challenges and facilitate higher orders of learning is explored.

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