



Sustainable Delaware NEWSLETTER

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2013 Sagan National Colloquium

Ohio Wesleyan, founded in 1842, is a liberal arts institution that strives to equip students “with knowledge, competence, and character for leadership, service, and continued learning in a complex and increasingly global society.” Now more than ever the college wants to provide every student with significant international exposure and engagement. Each and every student is to be introduced to global issues and international perspectives. Among the many initiatives to meet that benchmark, Ohio Wesleyan has organized a lecture series called “Sagan National Colloquium.” A wide variety of topics have been covered over the past twenty years or so, but recently the focus has been on sustainability and interrelated topics. In 2008, the theme was “Cultivating a Green Campus,” followed by another SNC in 2012 on food and nutrition. This year’s colloquium deals with interdisciplinary aspects of climate change, the 2014 speaker series will zero in on interdisciplinary aspects of water.



SDO members Barb Tull and Sheila Fox.

All of these topics are global in scope. International conversations and solutions are needed to solve problems such as climate change, sea-level rise, storm systems, droughts, air and water pollution, dead zones, ocean acidification, loss of biodiversity, and so on.

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IPCC Working Group 1 Report

The IPCC Working Group 1 (The Physical Science Basis) Fifth Assessment Report, AR5, has been released, as well as the associated Summary for Policymakers. It makes difficult reading.

The main points (with associated diagrams) are as follows:

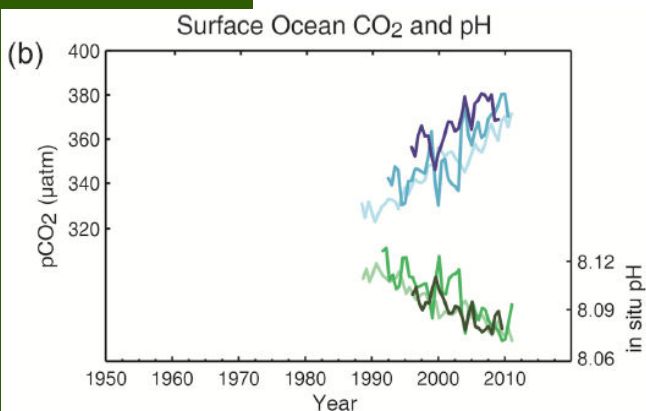
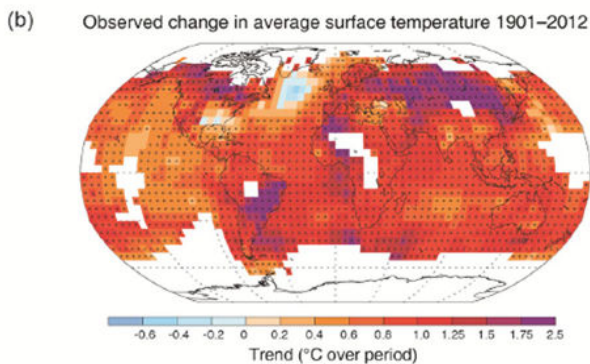
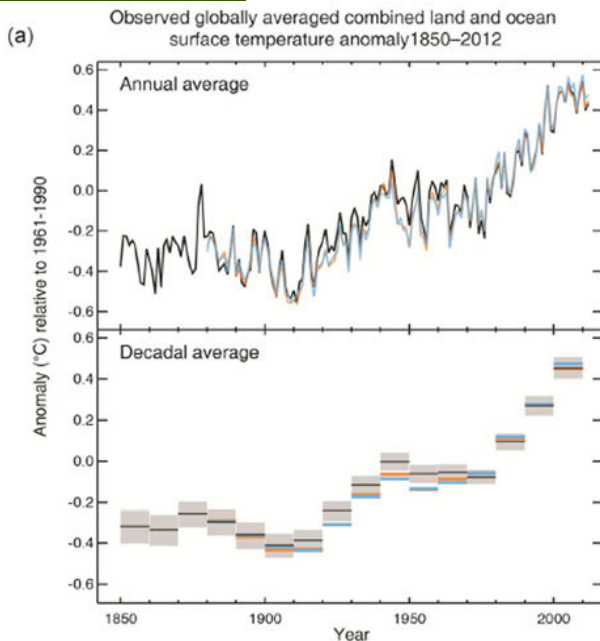
Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the con-

centrations of greenhouse gases have increased.

Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4. It is *extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century. **[Extremely likely means greater than 95% certainty.]**

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IPCC Report - continued



Each of the last three decades has been successively warmer at Earth's surface than any preceding decade since 1850. In the Northern Hemisphere, 1983–2012 was *likely* the warmest 30-year period of the last 1400 years (medium confidence). [**Likely means 66 to 100%.**]

The atmospheric concentrations of carbon dioxide (CO₂), methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. CO₂ concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification (see fig. b, lower left).

Total radiative forcing is positive, and has led to an uptake of energy by the climate system. The largest contribution to total radiative forcing is caused by the increase in the atmospheric concentration of CO₂ since 1750.

Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.

Ocean warming dominates the increase in energy stored in the climate system, accounting for more than 90% of the energy accumulated between 1971 and 2010 (high confidence). It is *virtually certain* that the upper ocean (0–700 m) warmed from 1971 to 2010, and it *likely* warmed between the 1870s and 1971. [**Likely means 66 to 100%. Virtually certain means 99 to 100% certainty.**]

Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, Glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent (high confidence).

We are not here to curse the darkness, but to light the candle that can guide us through that darkness to a safe and sane future. —John F. Kennedy

“Stake the Lake” at Delaware Lake

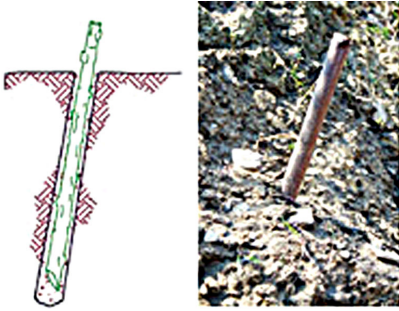


Fig. 1
Tree stakes
as they will
be used at
Delaware
Lake.

Delaware Lake is a drinking water resource and recreational reservoir located in northern Delaware County. It is an enjoyable attraction for boating, fishing, and swimming. However, recent visitors may have noticed several of the lake's banks are eroding. Alex Silbajoris and I have joined efforts, creating an event to plant live Willow tree stakes along one of those eroded banks. Alex is the chair of the Friends of the Scioto River and I am the Upper Olentangy River Watershed Coordinator. Delaware Lake is part of the Upper Olentangy River watershed, but since the Olentangy River joins with the Scioto River in Columbus, Alex and I both have a strong interest in this project in Delaware.

The area surrounding the lake is a designated State Park and to the south is the Delaware Dam. Since planting would take place on State Park property, approval of this

project is necessary from the Ohio Department of Natural Resources, Division of Wildlife. Also, the Delaware Dam could be affected by what is occurring along the banks of Delaware Lake. Therefore, the Army Corps of Engineers also needs to approve this project. The proposal was sent to both organizations, the Ohio Department of Natural Resources has permitted the project, and the Army Corps of Engineers has approved the project.

Live tree stakes are dormant tree cuttings with the branches trimmed off (Figure 1). Once these trees mature, the roots would help stabilize the bank and lessen the sediment in the lake. An advantage of these stakes is that they do not require a large hole to be dug like most trees or shrubs. This method of planting is more beneficial to the water because there will not be loose soil close to the water. It is ideal to plant these tree cuttings during the dormant part of the year (October – March). So, Alex and I have determined that the tree stake planting event will take place on November 23, starting at 10am. We are looking for volunteers to help plant these 250 live Willow tree stakes that will be purchased by the International Paper company, based in Delaware.

For those that are interested in learning more about this event or volunteering, please contact me. Kristin Piper 740-203-1905 or kpiper@delawareohio.net

2013 SNC - continued

SDO is grateful that Ohio Wesleyan has been a steadfast partner in our efforts to achieve a sustainable way of life. SDO and the Delaware community have greatly benefited from OWU's educational mission and resources. OWU faculty, such as Laurie Anderson, have assisted SDO in the past. In turn, SDO members such as Gordon Aubrecht and Tom Wolber have served as SNC speakers. This year's SNC, in particular, has been attended by many SDO members. At several of the events, SDO had a table displaying various pieces of literature. Sheila Fox, Lee Lybarger, Barb Tull, and Tom Wolber helped disseminate information about ways to get involved in sustainability efforts on the local level. One of the speakers – Michael Dorsey – even held up one of SDO's flyers during his talk and praised the group as a shining example of grassroots activity.

Increasingly, Ohio Wesleyan is no longer content with theoretical discussions that take place in the classroom. The educational experience is gravitating toward a more hands-on approach that goes beyond formal classroom instruction. “Theory into practice” and “Thought into action” are the new mantras. Many institutions of higher learning are adding civic engagement, community-based work, volunteerism, service learning, internships, and apprenticeships to the curriculum. In its 2013 Strategic Plan, Ohio Wesleyan has stated that it seeks to be “a leader in higher education with its commitment to environmental sustainability.” That is good news for Delaware and Ohio. Given the open hostility of some and the indifference of many it is tempting for environmentalists to despair. But as long as young people embrace sustainability, and institutions of higher learning respond to their needs, there is hope.



Sustainable Delaware Ohio

Our Mission: Sustainable Delaware is a non-profit group of citizens focused on promoting environmental, social and economic sustainability for the Delaware community through awareness, advocacy and action.

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Have a comment, idea or article for the newsletter? We would love to hear from you, please email us at:

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Visit us on the web at www.sustainabledelawareohio.org and our Facebook group: Sustainable Delaware Ohio



Interesting Articles on the Web

Blue Rock Station (green living)

<http://www.bluerockstation.com/>

Broccoli's Extreme Makeover

http://www.nytimes.com/2013/11/03/magazine/broccolis-extreme-makeover.html?_r=0

Recyclable Holiday (from Dec. 2012 Newsletter)

<http://www.sustainabledelawareohio.org/Newsletters/12-2012%20Sustainable%20Delaware%20Newsletter.pdf>

5 Signs the Energy Sector is Changing Fast

<http://www.treehugger.com/energy-policy/5-signs-energy-sector-changing-fast.html>

How to Start a Reusable Takeout Container Program

<http://www.shareable.net/blog/how-to-start-a-reusable-takeout-container-program-at-your-college>

Recycling Fracking Water

<http://finance.yahoo.com/photos/recycling-frack-water-1384188594-slideshow/>

Build a Veggie Box

<http://www.greenlivingonline.com/article/build-veggie-box>

Interview with the Moneyless Man

<http://www.shareable.net/blog/interview-with-the-moneyless-man>

Upcoming Events

For more upcoming events and details see the SDO calendar on the website at <http://www.sustainabledelawareohio.org/Events.html>

11/14/13	7p	2013 SNC –Anthony Leiserowitz: OWU, Benes Room
11/16/13	10a—11a	Making Sausage: Gallant Farm Preserve
11/16/13	1p—3p	Farm To Fork: Stratford Ecological Center
11/19/13	7p	2013 SNC -Marshall Shepherd: OWU, Benes Room
11/23/13	10a	Stake the Lake: East side of Delaware Lake
11/23/13	12p—4p	Wildlife Investigation: Deer Haven Preserve
11/21/13	7p	2013 SNC -Anne Cohen: OWU, Benes Room
11/29/13	6p	Ca\$hMob; Meet at the Main Street Delaware office
12/5/13	7p—9:30p	Researching Climate Change: Dr. Lonnie Thompson: COSI, Columbus
12/6/13	6p—9p	First Friday: Christmas in Delaware! Historic Downtown Delaware
12/11/13	6:30p -8p	Sustainable Delaware Board Meeting: Delaware County Library, Main Branch
12/12-15/13	12p—5p	Unplugged Play: Toys before Technology: Gallant Farm Preserve
12/14/13	9:30a -11a	Sustainable Delaware Meeting: Delaware County Library, Main Branch
12/19-22/13	12p—5p	Unplugged Play: Toys before Technology: Gallant Farm Preserve
12/27/13	6p	Ca\$hMob: Meet at the Main Street Delaware office