

#### **GORDIE NEWS**

(January/February 2009 3:1)
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Gordon Natural Area for Environmental Studies
West Chester University of Pennsylvania
(A Certified Wildlife Habitat by the National Wildlife Federation)



#### **Special Announcements & Dates-**

April 7, 14, 21: Tree Tenders Training; 6-9pm; free
April 18: Overlease Dedication; Father of the Gordon Natural Area
April 20: Seminar – "Forests too Deer" with Dr Roger Latham; 3pm SSN 192
April 21: Dedication of Outdoor Laboratory with President Weisenstein; 1pm
Taking Root: The Vision of Wangari Maathai; 7pm
April 22- Earth Day
April 24 -Arbor Day; Tree planting in GNA with Honors Class
April 25- Clean up the Plum Run

Help save postage: If you have an E-mail we can add you to the Friends of the Gordon Natural Area (http://www.gordonarea.org) and other activities

Contact Erika Szonntag with feedback or ideas for articles at <a href="mailto:es631042@wcupa.edu">es631042@wcupa.edu</a>

:: What's New? ::

# Sustainable Operations Tip of the Month The Art of Composting

From the Northeastern Area News Notes December 29, 2008

Of all the recycling processes in use, composting is the oldest and most natural. Organic materials in nature decompose through the action of microorganisms such as bacteria and fungi as well as insects and earthworms to produce nutrient-rich humus. Without this natural process, planet Earth would be inundated in dead plant material.

According to the EPA, nearly 24 percent of all municipal waste consists of yard trimmings and food waste. Composting is an environmentally responsible alternative to putting organic materials into landfills or burning.

Compost can be made in a simple pile of organic materials, but enclosures made of wood pallets, snow fence, welded wire fence, or cement blocks make containing, aerating, and turning the material easier. Commercial compost drums made of plastic or metal are available, but are more expensive. Regardless of type, be sure to situate the bin in a dry, shady area near a water source. In-depth descriptions of several types of bins, material lists, and how-to instructions can be found at <a href="http://extension.missouri.edw/explore/agguides/hort/G06957.htm">http://extension.missouri.edw/explore/agguides/hort/G06957.htm</a>.

Composting works best with a ratio of about 30 parts carbon to one part nitrogen by weight. Carbon sources are usually brown items like dead leaves, pine needles, cardboard, wood chips, small twigs, straw, hay, and sawdust (not from treated wood). Nitrogen sources are usually green materials like grass clippings, garden waste, and weeds as well as chicken, horse, or cow manure, but not dog or cat droppings or used cat litter. Other green ingredients include coffee grounds and filters, tea bags, fruit peelings and cores, eggshells, cardboard towel rolls, cotton and wool rags, leather, and leftover vegetables.

Browns are slower to decompose without the addition of the faster decomposing green materials. Wood ashes and ground limestone can be used to balance the acidity of oak leaves and pine needles. Materials to leave out include plastic, metal, glass, large chunks of wood, and treated wood. It is usually recommended to omit bones, fats, meats, and dairy products to prevent attracting skunks, opossum, raccoons, and rodents.

The pile should be built in layers of a few inches of each material. Put in an occasional layer of coarse material so air can penetrate through the pile. Add some water to dry materials. Add a brown layer to the top of the pile to absorb odors. The optimum size is 4 or 5 feet wide and high. Any smaller, and it will lose heat too fast and never heat up enough to kill pathogens and weed seeds. When the pile cools down after the first week or two, it should be turned to mix the material and get fresh air into the pile so the microbes can finish their work. Turning will also help destroy insect larvae and pathogens. What seems like a large pile at first will eventually become a small part of the volume of the original materials. (A pile of grass clippings is about 90 percent water, and a pile of leaves is mostly air.) Depending on size, materials, and moisture, among other things, the conversion of organic material to compost can take up to 2 years, but manual turning can hasten the process considerably (e.g., 3 to 6 months). Commercial products that speed up the decomposition process are also available.

## **Photographer in the Gordon Natural Area:**

My name is JoAnn Clark. By day I am a systems analyst, sitting in front of a computer documenting technical things. I escape this daily grind through my photography. It wasn't until a year or two ago that I realized photography is in my blood, usually shooting either

commonplace things no one else would look twice at, or just nature at its finest. I probably get the nature photography bug from my father; he's been taking pictures longer than I've been around, mostly of nature and migratory birds in South Jersey.

I was introduced to the Gordon Natural Area by my husband Aaron nearly a year ago. He is pursuing his Masters Degree in Geography at WCU and had been doing some work for his Field Methods class in the Gordon Area. He instantly knew I could get some great shots in those woods. One weekend late last winter, we made the drive down to WCU and roamed around the woods a bit. My hope is that we'll come down to the Gordon Area during different seasons in the future to see how the place changes throughout the year.

Below are links to my website, both a general link which has the running photostream as I upload images, and one more specific to WCU and the Gordon Area.

General: www.flickr.com/photos/psuhockeychick

Gordon Natural Area: <a href="https://www.flickr.com/photos/psuhockeychick/collections/72157612159283191/">www.flickr.com/photos/psuhockeychick/collections/72157612159283191/</a>

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# Video Blog - Welcome to Cosmo's World: Learn About Biodiversity, Invasive Species, and More

The <u>Pennsylvania Wild Resource Conservation Program</u> has a new online education program featuring Cosmo the flying squirrel and Terra the river otter to help teach students about biodiversity, invasive species, endangered species and climate change.

Cosmo's World was produced by the Wild Resource Conservation Program and public television station WLVT Allentown-Bethlehem-Easton (PBS 39) to help classroom teachers and environmental educators teach these elementary school science topics in a fun and engaging way.

Cosmo and Terra are featured in four online videos that introduce the topics. Teacher's Guides accompany each video with a lesson plan and related student activities.

Visit the <u>Cosmo's World webpage</u> for more information.

Video Blog: Welcome To Cosmo's World

### New USDA Forest Service Grant

A new grant for the Forest Service will allow us to complete the following activities in the GNA in 2009

1. Forest health monitoring plots – 18 in the GNA

These plots contain the primary invasive tree species-Norway maple, tree-of-heaven and black locust-found in the area as well as the primary native upland, flood plain and old farm field tree species. The five-six year re-measurement of these plots will allow forest ecologists to better grasp the trends and make better management decisions. Popular one-page summaries will be distributed and posted on the Gordon Natural Area website.

Invasive herbs, vines and shrubs continue to take over many of the habitats and the rate must be determined and reported so more aggressive actions can be recommended and taken. Popular summaries of the baseline data will be prepared and the data base will be made public on our web page

2. Invasive plants/deer interaction Demonstration Areas for −3 areas Funded by DCNR & WCU (2007)

DCNR funding has allowed for the establishment of the demonstration sites and for initial measurements and treatments to be made. Forest Service funds will support technology transfer and maintaining the sites. Implementation of the interpretation plan will include the kiosk, signage and brochures

- 3. Garlic mustard mycorrhizal laboratory study Funded by Center for Invasive Plant Management, Bozeman, MT (2007)
- 4. Deer population estimation (funded by WCU)

A cooperative agreement with USDA-APHIS allowed us to utilize bait station/cameras technology to estimate deer populations in the area. These estimates will allow us to prepare a management approach to manage our deer population and thus promote native plant biodiversity. We will sponsor public meeting based on these data and prepare a deer management plan.

- 5. Biological Control Demonstration Areas
  - a. Tree-of- Heaven (Penn State)
  - b. Mile-a- Minute (University Delaware)
- 6. Forest restoration project Funded by WCU & Tree Vitalize (2008)

Planting was completed by May 9, 2008. Tree diameters and heights were collected and put into data base. All garlic mustard and vines were removed from restoration area and signage and popular publications will be prepared

7. Classroom laboratory practicals

- a. Carbon Storage (GIS field methods)
- b. Amur Honeysuckle (Population Dynamics)
- c. Garlic Mustard (Ecology)
- 8. Botantical Survey of the Gordon Natural Area Funded by WCU (2007)
  - a. Protect with fence one area with rare or endangered plants and keep it free of non-native invasive plants

### **USDA Forest Service says tree species are migrating**

February 11<sup>th</sup> – "A new study by the Forest Service suggests that certain tree species may be migrating north at a greater rate than previously thought. The February issue of Forest Ecology and Management published the study which tracked 40 major species in 30 East Coast states comparing the latitude and climate of seedlings establishment to the location of mature specimens of the same species.

Previous studies on tree migration rates were conducted with computer simulations, but this study marks the first study tracking actual colonization of species based on latitude and sampling plots. According to the study authors, Northern white cedar, American basswood, sugar maple, black ash, bigtooth aspen, and yellow birch trees are migrating north with basswood and maple establishing stands as far as 30 miles north of the previously recorded range." Full text of the article available at <a href="http://news.nationalgeographic.com/news/pf/25299927.html">http://news.nationalgeographic.com/news/pf/25299927.html</a>

Dr Hertel Attends Senate Hearing on Delayed Deforestation as a Guest of Professor Maathai

Feb 9, 2009: Congressional Briefing-Call for U.S. Leadership on Forests and Climate. Sponsored by Avoided Deforestation Partners (<a href="www.adpartners.org">www.adpartners.org</a>). Dr Hertel was a guest of Professor Maathai's Greenbelt Movement (<a href="www.greenbeltmovement.org">www.greenbeltmovement.org</a>)



L-R: Cassie Pataky, Greenbelt Movement USA; Wanjira Maathai, Greenbelt International Professor Maathai, Dr. Hertel

## Mid-Atlantic "Green Landscaping" from the EPA

http://www.epa.gov/reg3esd1/garden/index.htm

"Green landscaping, beneficial landscaping, environmentally friendly landscaping or sustainable landscaping -- whatever you call it, it's a way of designing and maintaining beautiful yards, gardens, and larger landscapes." The benefits include:

- reduce harm to the environment
- save time and money with lower maintenance
- have healthier places to work and play
- provide habitat for wildlife

The EPA also outlines tips for getting started, which plants to consider, and other links.



Green landscaping in front of a home

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### Also from the EPA: WaterSense

http://www.epa.gov/watersense/

"WaterSense, a partnership program sponsored by the U.S. Environmental Protection Agency, makes it easy for Americans to save water and protect the environment. Look for the WaterSense label to choose quality, water-efficient products. Many products are available, and don't require a change in your lifestyle."



The website offers links to finding WaterSense products, tips for saving water, and how you can help.

## **Billion Tree Campaign**

The United Nations Environment Programme (UNEP) has launched a campaign to plant trees all over the world. The Gordon Natural Area pledged and has planted 200 trees

Visit http://www.unep.org/billiontreecampaign/

**GNA Supporters:** 

2004: Presidential Initiative (WCU); Environmental Council (WCU); USDA Forest Service;

Henderson High School Environmental Club; Friends of the Gordon Area

2005: Wegman's; Yellow Springs Farm Native Plant Nursery; Environmental Council;

Henderson High School Environmental Club; Friends of the Gordon Area

2006: Yellow Springs Farm Native Plant Nursery; Valero Energy Corporation; National

Wildlife Federation; Henderson High School Environmental Club; Friends of the Gordon Area

2007: Pennsylvania Department of Natural Resources (PA DCNR), Wild Resources Program;

WCU Alumni Association; Darlington Biological Society; MENTA Café; Yellow Springs Farm Native Plant Nursery

2008: Redbud Native Plant Nursery; Aramark; PA DEP & AQUA PA, Tree Vitalize Program;

Yellow Springs farm Native Plant Nursery

2009: USDA Forest Service

Contact: ghertel@wcupa.edu; 610-436-2722; 484-883-3371

**NO TRAIL BIKES ARE ALLOWED IN THE GNA** – They have increased the length of trails by 300% and are impacting the biodiversity in the GNA.

**DOGS NEED TO BE LEASHED** – Students doing laboratory assignments have been attacked by unleashed dogs.

**WCU Public Safety**: 610-436-3311; 911 calls-tell them you are on Stadium Rd or Gordon Natural Area; WCU Public Safety will be first responder