

Ten Tips for Preserving Biodiversity

by Janna Leyde

<http://www.thegreenguide.com/doc/119/earthday>

Modified for Gordon Natural Area/West Chester University/West Chester PA

Let's talk about the birds and the bees and the flowers and the trees, and how they could all use a little thing called love. It's springtime, plants are blooming, animals are perking up and it's the perfect time to make changes that both celebrate and protect biodiversity around us.

One area around us at WCU is the Gordon Natural Area (GNA). Its primary mission is to promote education, research and protect BIODIVERSITY.

While global warming and human expansion have us focused on dropping the carbon pounds—switching light bulbs, reducing gas mileage and buying carbon offsets—vast numbers of species continue to lose their native habitats and food supplies. Globally, 23 percent of mammals, 12 percent of birds and 32 percent of amphibians, alongside nearly 8,400 plant species, are on the World Conservation Union's 2006 Red List of species threatened with extinction. Here in the U.S., indigenous plants and animals once protected by the Endangered Species Act must fend for themselves. De-listed in March, Yellowstone grizzlies face increased snowmobile and automobile traffic in the park while a warming climate is causing the proliferation of a whitebark pine beetle that's destroying a grizzlies' major food source, the seeds of the whitebark pine. Rising ocean temperatures, human poaching and agricultural runoff are endangering staghorn and elkhorn coral, as well; these coral are primary components of reef systems off the coast of Florida and into the Caribbean. **All native living things in the GNA are being impacted in part by invasive non-native plants, too many deer, too much stormwater and trail bikers.**

The Green Guide's ten Earth Day tips will help you conserve biodiversity where you live. Think of each change you make as the butterfly effect—your seemingly infinitesimal actions can spark a chain of events that leads to greater benefits.

1. Rather than writing checks and stuffing envelopes each month, switch to tree-free billing and pay everything from your credit card to your cell phone bills online. Forests not only remove CO₂ from the air but are richly complex ecosystems, providing habitat for mammals, birds, plants, insects and mushrooms and other fungi to thrive. Approximately one billion trees worth of paper are thrown away every year in the U.S. For the paper products you do have to use, like tissues and toilet paper, consult *The Green Guide's* Paper Products Smart Shopper's Card www.thegreenguide.com/doc/112/paper.

2. Join a community supported agriculture (CSA) program at www.localharvest.org or www.biodynamics.com (which also lists CSAs in Canada). By becoming a shareholder of a community supported organic farm or garden, you can back pesticide-free agriculture and fund businesses in your area. In return, you and your family will enjoy weekly baskets of whatever your grower provides—fresh produce, fruit, flowers, or herbs. Plus, eating local, seasonal foods preserves indigenous crops and agricultural methods beneficial to a large variety of species.

Community Supported Agriculture IN Chester Co

www.chesco.org/agriculture/farmmarkets

<http://www.pasafarming.org/buylocal/index.htm>

3. Get involved at the local level. Find out the quality of your community's rivers and streams at the EPA's "Window to My Environment," www.epa.gov/enviro/wme. If those in your area show a high level of contaminants, go to a local government meeting and encourage political leaders to clean them up. Because wastewater treatment plants don't remove chemical contaminants, aquatic biodiversity is threatened by chemicals in pharmaceuticals and personal care products. A growing number of studies are finding hormone-disrupting phthalates common in pills and lotions are interfering with the reproductive abilities of fish. Think about eliminating the use of fertilizers and pesticides on your lawn & garden. **The GNA is located in the Plum Run Watershed. Participate in GNA work days. Volunteer for Brandywine Valley Association (BVA) activities in the Plum Run Watershed;**

See Gordie News for GNA events; www.gordonarea.org

Volunteer to assist BVA: <http://brandywinewatershed.org/43245.BVA.NLweb.pdf>

4. Buy local honey at your farmer's market or www.honeylocator.com. All around the country large and small beekeeping operations are registering staggering losses of honeybees, with some farmers reporting population drops of 99 percent. While there is no obvious single cause, pesticides, parasitic mites and loss of woodland habitat are all considered culprits. Vital to agriculture, honeybees are responsible for pollinating \$14 billion dollars worth of U.S. crops and, according to the American Beekeeping Federation, a third of the food Americans eat.



5. Turn your backyard into a wildlife habitat. Visit the National Wildlife Federation's (NWF) "Garden For Wildlife," and see what you can do to attract songbirds, butterflies and native species. Then certify your habitat, along with 75,000 other NWF-certified yards, community gardens, school grounds and business sites across the U.S. and Canada at www.nwf.org/backyardwildlifehabitat/certify/page1.cfm. Certification requirements include providing shelter, water and food, using least-toxic pesticides and water conservation.

Habitat Resource Network of Southeast Pennsylvania

www.habitatresourcenetwork.org.

6. Use native plants. Plant a native tree in a community park, by your local stream, or donate one for the Gordon Natural Area. Native trees, shrubs & plants provide food and shelter for indigenous insects and animal life.

Retail:

Yellow Springs Farm Native Plant Nursery: <http://www.yellowspringsfarm.com/>

Redbud Native Plant Nursery: <http://www.redbudnativeplantnursery.com/>

Wholesale:

Octoraro Native Plant Nursery: www.octoraro.com

7. Help the butterflies by purchasing \$16 worth of milkweed seeds (make sure they are native to this area-see below) from www.monarchwatch.org. Monarch butterflies lay eggs in milkweed, which is the only crop larvae eat from the time they're born to the time they form a chrysalis. The butterflies are rapidly losing their patches of habitat across the U.S. and Mexico, where both eastern and western monarchs migrate in the winter, due to climate change, agricultural pesticides and population growth. Butterflies are bio-indicators that scientists look to for signs of landscape quality and habitat loss.

Pennsylvania Floral Data Base (Botany Department, Morris Arboretum)

<http://www.paflora.org/Search.html>

watershed-enter Brandywine

Scientific name-enter Asclepias

8. Conserve an endangered or threatened species indigenous to your area, whether it's the Ohio mussel, the Georgia sea turtle, or the Puerto Rican Parrot, the only parrot species native to the U.S. The Association of Fish & Wildlife Agencies provides a listing of state department web sites, where you can learn more about the plants and animals in your area and how you can save them www.fishwildlife.org/where_us.html.

Fish, reptiles & amphibians: <http://www.dcnr.state.pa.us/wrcf/franda.aspx>

Plants: <http://www.dcnr.state.pa.us/wrcf/plants.aspx>

9. Eat healthier fish. Not only do certain fish species contain high levels of mercury but many of the world's fisheries are either farmed destructively, severely over-fished or under threat from invasive species. Over-extraction has led to depleted water supplies and invasive species encroachment in the Rio Grande, where 32 freshwater fish species have been displaced, according to the World Wildlife Fund. For a quick reference on which fish are best, see *The Green Guide's* Fish Picks Smart Shopper's Card www.thegreenguide.com/doc/115/nofish.

10. Join Frog Watch USA, a partnership of the National Wildlife Federation and the U.S. Geological Survey. Volunteer—only 20 minutes a week to listen and observe at a nearby wetland—to help scientists study the state of the declining frog and toad populations across the nation. Understanding amphibian populations is crucial to finding out the affect of human activity on water quality, habitat and ecological processes www.frogwatch.org.

No frogs, try Cornell's Feeder watch program <http://www.birds.cornell.edu/pfw/>

PLEASE PROVIDE FEEDBACK ON HOW THIS LIST CAN BE
EXPANDED/MODIFIED etc TO BETTER SERVE FOLKS IN OUR PART OF THE
WORLD.

Gerard Hertel; ghertel@wcupa.edu; 610-436-2722
Stewardship Manager
Gordon Natural Area
Modified 11/16/08