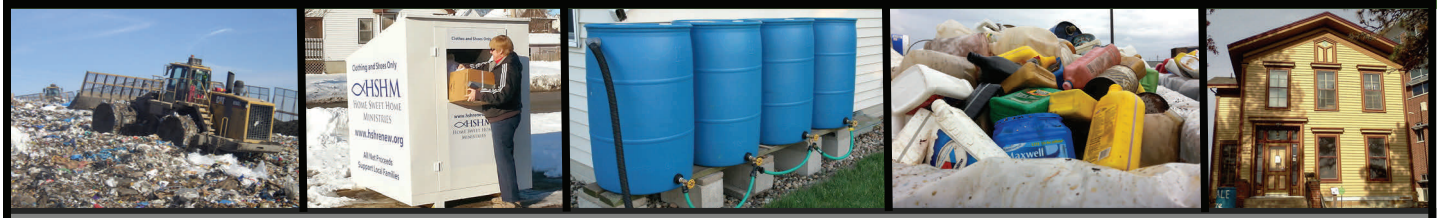
ecology action center news



Volume 12, Issue 1 Spring 2014

Illinois Sustainable Living and Wellness Expo
April 12 - IWU Shirk Center

According to Sir Issac Newton, *For every action*, *there is an equal and opposite reaction*. To put it a different way, what comes around, goes around. Case in point: your health and your environment. The inextricable connection is undeniably evident. When we dispose of hazardous waste inappropriately, we pollute our own drinking water supply. When we convert the landscape from permeable sponge-like prairies and wetlands to suburban development, it loses its natural ability to absorb stormwater and filter out pollutants that we have generated. When we burn or incinerate materials indiscriminately, the very air we breathe becomes hazardous to our health and well being. When over the course of a relatively short period (150 years) we release a significant portion of the planet's carbon (from fossil fuels) that was sequestered over the course of millions of years, there are then global climactic shifts that impact our very way of life.

The point here is that it is no longer altruistic to be an environmentalist. Tree hugging is no longer necessarily about the intrinsic rights of trees, but the critical ecosystem services they provide us from generating the oxygen we breathe, to sequestering the carbon we generate, to even some cases where they are the bottom rung of the food chain, acting as food sources for important pollinators, without whom we would not have critical food crops!

That being said, what's one to do about it? **The Illinois Sustainable Living and Wellness Expo is your answer.** The ISLWE is your one-stop resource for all things green, health, and wellness. Nearly one hundred exhibitors will provide information on topics ranging from PCBs and the Mahomet Aquifer to energy efficiency in your home. Local food is front and center with participation from the Green Top Grocery, U of I Extension, Epiphany Farms, and Two Blokes and a Bus! Get to the expo in a sustainable fashion and then learn more about transportation from Friends of the Trail, Bike BloNo, Connect Transit, Walk-In/Bike Out, and more! Learn more about natural areas in our community from Sugar Grove Nature Center, Parklands Foundation, and McLean County Greenways! Reduce waste, reuse, and recycle more with the MEGA Recycling Event outside (accepting e-waste, CFLs, batteries, clothing/textiles, and offering document shredding), Midwest Fiber, Henson Construction & Demolition Recycling, Environmental Solutions Group, Habitat for Humanity ReStore, and the Renewable Fashion Challenge!

Also find resources on

- Natural and safe products
- Holistic and alternative health strategies
- Native landscaping
- Alternative energy
- Home weatherization
- Sustainable communities
- Socially responsible investing

The ISLWE comes but once a year so don't miss out - Saturday, April 12, 9 a.m. to 4 p.m. at the Illinois Wesleyan University Shirk Center. MEGA Recycling in the parking lot from 9 a.m. to 1 p.m. only. More information at **islwe.org** or by calling 454-3169. Free and open to the public and brought to you by the IWU Wellness and the EAC. See you there!

Mark Your Calendar

April 1 Green Drinks: Presentation by Karen Hanrahan

April 12 Illinois Sustainable Living and Wellness Expo

April 19 Constitution Trail & Sugar Creek Clean Up

May TBA Rain Barrel Workshops

May 13 & 14 Mahomet Aquifer Public Hearings

June 28 Yard Smart Garden Walk

In This Issue

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TOP-RATED NONPROFIT

The honey bees are dying off, but you can help save them by being Yard Smart

By Carl Roberts, EAC Volunteer

Do we face a desolate world without pollinators?

Imagine a world where you couldn't enjoy a steaming mug of coffee in the morning or indulge in a chocolate delicacy after dinner. Where apples, strawberries and dozens of other fruits would be mere memories. Where broccoli, carrots and numerous other vegetables would not be available to enrich your diet. And where you would have to wear synthetic polyester leisure suits because cotton would no longer grow.

Such a world is a real possibility if the populations of honey bees and other insects that pollinate plants (pollinators) continue to die off. Dozens of plants would not be able to survive. Honeylove.org lists 96 different plants that are dependent on pollination, and there are many more.

The demise of honey bees is not a myth. Honeylove.org reports that "in just the last ten years, over 40% of the bee colonies in the US have suffered Colony Collapse Disorder (CCD)." Due to this disorder, bees either fly back to their hives and die or become disoriented and die away from home.[1]

Where have all the honey bees gone?

"There is agreement among beekeepers and scientists that the health of honey bees has been in decline for years," according to the Penn State University Department of Entomology. They go on to say "the rate of decline appears to be accelerating," and they refer to a study published in the journal Science that confirms the belief that the decline in honey bees and other pollinators will have a drastic effect on the plants that require pollination throughout the world.

A Penn State study in 2007 documented that a large portion of the 2.4 million honey bee colonies that provide crop pollination have been affected by exposure to chemical pesticides. Testing of piles of dead honey bees outside their hives, along with pollen and wax samples, found pesticide residues.

Only three of 108 pollen samples tested showed no evidence of pesticides. In the other 105 pollen samples, researchers identified 46 different pesticides. Twenty different pesticides were identified in a test of 88 wax samples. The most commonly detected pesticides were "fluvalinate, coumaphos and chlorpyrifos."[2]

Is there other evidence of honey bees being exposed to pesticides?

Evidence of pesticides that are highly toxic to honey bees have been found in the bees and areas where bees do their pollination. Some of the findings reported by plosone.org are as follows:

The dead and dying bees that were tested showed the presence of pesticides. The healthy bees that were tested did not contain detectable levels of pesticide.

Dandelion flowers that were tested contained pesticides. Researchers said the pesticides could have been deposited on the outside of the flowers or infected the flowers by uptake through the root system.

Pesticides were detected in the soil of fields that were tested. These fields included those that were planted and those that were unplanted.[3]

What other pollinators are there besides honey bees?

While honey bees are the best-known pollinators, there are other pollinators as well. Northwestern University defines a pollinator as follows:

"A pollinator is an animal that causes plants to make fruits or seeds. They do this by moving pollen from one part of the flower of a plant to another part. This pollen then fertilizes the plant. Only fertilized plants can make fruit and/or seeds, and without them, the plants cannot reproduce."

Bees, hummingbirds and some types of butterflies are the best pollinators. When they brush up against a flower in order to gather their food, some of the pollen gets on their bodies. They brush

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up against other parts of the flower, and the pollen on their bodies rubs off onto the plant. This moving of pollen is what fertilizes the flower.

Other insects – such as spiders, flies and wasps – are also pollinators at times. When they use a flower as a hiding place or occasionally scavenge for food, they brush up against the flower. This does not happen nearly as frequently as the pollination by bees.

The 96 different plants mentioned earlier require pollination by bees or other creatures in order to reproduce or grow fruit. There are some kinds of plants, however, that do not require the involvement of bees or other pollinators. Illinois' world-famous corn and soybeans are pollinated by the wind blowing on them.[4]

How are herbicides affecting Monarch butterflies?

Slate.com reports that the Monarch butterfly population is rapidly shrinking because milkweed -- the only plant the butterfly larvae will eat – is being killed off by herbicides. University of Minnesota biologists estimated that as "the amount of milkweed in farm fields fell by more than 80 percent …the loss of milkweed almost exactly mirrored the decline in Monarch egg production."

The loss of milkweed in Iowa is estimated to be worse than that in Minnesota. Iowa State University estimates that "Iowa farmland has lost more than 98 percent of the milkweed that was once there." This includes patches of milkweed that frequently grew among crops and at the edges of fields. Herbicides have killed off the milkweed that previously fed the butterflies.[5]

You can help save the honey bees by being Yard Smart

You can make a difference by becoming involved in the Ecology Action Center's (EAC) Yard Smart program. Yard Smart is a voluntary effort to help reduce synthetic pesticide use, conserve natural resources and make room for wildlife. The program encourages yard care practices that are safe for children, pets and the environment.

The Yard Smart Program aims to recognize local homeowners who use ecologically-sustainable practices in their yard care. Homeowners can be certified for any or all three Yard Smart levels.

Certification #1: The Chemical-Free Yard certification recognizes not using synthetic pesticides and fertilizers.

Certification #2: The Easy on the Earth certification recognizes using organic practices that reduce waste and conserve natural resources like water and fossil fuels.

Certification #3: The Wildlife Habitat certification recognizes homeowners that provide the basic requirements for wildlife to survive and flourish.[6]

Specific ways you can be involved

Learn how to be Yard Smart by checking out the EAC website.[6] The site includes a number of fact sheets on practical ways to implement the Yard Smart practices.

Join the EAC's annual Yard Smart Garden Tours, which are free and open to everyone. You will visit Bloomington-Normal-area yards that demonstrate the reduced use of pesticides, smart ways to recycle, and how to create a wildlife habitat. Please call the EAC at 309-454-3169 for tour information and reservations.

Contact the EAC by calling (309-454-3169), using the "Contact us" tab on the website ecologyactioncenter.org, or stopping by the EAC at 202 West College Ave. in Normal.

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TOP-RATED NONPROFIT

Hazardous Waste Hits Close to Home

By Miya Thalmann, EAC Intern

In the past four years of living and attending school in Bloomington-Normal, Illinois I was never too concerned about pollutants in my drinking water, or even what source my water came from. While there are some concerns about local agricultural runoff in local water supplies, I trusted the local water authorities to manage these common pollutants. However, I, along with people from other communities of central and eastern Illinois, have come to learn that the quality of our water could soon be further compromised with even more harmful chemicals.

Some Problems:

A landfill near our Bloomington-Normal community in Clinton, Illinois has applied for a permit to accept an especially hazardous chemical called polychlorinated biphenyls (PCBs). Aside from the concern that this landfill was never designed to hold chemicals classified as hazardous waste, the landfill sits over an aquifer, the Mahomet Aquifer, which supplies water to various municipalities and homeowners in 14 Illinois counties, including the Town of Normal. For some of the communities it is the "sole source" of their available drinking water.

Someday, the City of Bloomington where I am currently living, may need to tap into this aquifer for water, thus this issue hits close to home for me. It is concerning that PCB's or other hazardous waste could leak from the landfill polluting the aquifer below, thus polluting the drinking water that some 750,000 people presently use. Currently there is no protection from the federal U.S. Environmental Protection Agency (EPA) for the proposed PCB landfill permit in Clinton.

Storing hazardous waste that is potentially harmful to our health above a vital drinking water source, such as the Mahomet Aquifer, does not make sense. The PCBs proposed for dumping in the Clinton landfill are man-made organic chemicals that are highly toxic. They were first introduced in the 1920s as liquid insulation for electricity. They were also used as hydraulic fluids, in paints, ceiling tiles, and in making materials flame retardant. However abundant, PCBs were banned in 1977 in the US for production and use in new products because of the carcinogenic and toxic effects they were found to have. Even so, many pre-1977 products still contain traces of PCBs. PCBs silently persist in the environment and have long, chemically stable lives. Why would we allow them to be deposited over our drinking water source? Because of the region's dependence on the Mahomet Aquifer, it is vitally important to protect this water source from pollution, and preserve it for future generations.

The banned PCBs targeted for the local landfill are certainly not the only hazardous chemicals that can contaminate our water and harm our health. I have learned that, unfortunately, hazardous chemicals can be found everywhere: in our factories, farms or even more shockingly, in our homes. More common household hazardous wastes (HHW) include oil-based paints, used motor oil, herbicides or insecticides, cleaning products, household batteries and lawn chemicals. Unfortunately, these items cannot be safely recycled or disposed of without a special center or collection event. If we dispose of these incorrectly, for example, by just throwing them in our trash, this waste can pose a serious threat to our environment and our health, as they may leak into our soil, air and water.

Some Solutions:

Fortunately, I have learned that there is plenty we can do to protect ourselves and our local water supplies from improper hazardous waste disposal.

What We Can Do about Hazardous Waste:

Learn about the harmful consequences of hazardous waste.

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Seek responsible disposal of hazardous material. Bring your HHW to a local HHW collection event or find local drop off places for HHW, such as batteries, CFLs or other items. Visit the Ecology Action Center website to find responsible local ways to dispose of HHW (www.ecologyactioncenter.org) including local HHW collection events. The Illinois Environmental Protection Agency (IEPA) schedules household hazardous waste collection events throughout the state but funding has become irregular. See www.epa.state.il.us.

Reduce generation of hazardous waste. The most cost effective and safest strategy for hazardous waste management is **source reduction.** This reduction is the conscious effort to avoid generation and use of hazardous products. Avoid purchasing products that are hazardous all together and consider purchasing alternatives to household cleaning products. Before purchasing products, read labels to see if there are warnings about potential toxic substances. Buy smaller quantities of products that contain hazardous ingredients. Share any leftover product with neighbors or associations over the Internet. For more information visit: www.ecologyactioncenter.org and/or groups.freecycle.org/McFreecycle.

Local Action to Protect the Mahomet Aquifer:

U.S. EPA is now accepting comments for the proposed petition to designate the Mahomet Aquifer a Sole Source Aquifer (SSA) for Central Illinois. This will help protect our water source from contamination. The Safe Drinking Water Act is the main federal law that ensures the quality of American's drinking water. From this act the U.S. EPA has authority to classify an aquifer as a sole or principal source of drinking water for certain bodies of water. This designation, in relation to the Mahomet Aquifer, would allow the EPA to review all federally funded projects to ensure they will not lead to contamination.

- **Learn more about the Mahomet Aquifer** through various websites.
    - Town of Normal's website (www.normal.org) contains the recorded meeting and presentations from a recent Mahomet Aquifer Summit.
    - Mahomet Protection Alliance (www.mahometaquifer.org)
- **Attend the 2014 Illinois Sustainable Living & Wellness Expo** on April 12 and meet the Mahomet Aquifer Protection Alliance to learn more.
- **Attend two public hearings in May.** See www.mahometaquifer.org for details.
- **Contact the US EPA.** For more information visit: www.mahometaquifer.org.

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