

Conservation Matters

Quarterly Newsletter of the Mills County Conservation Board
Summer 2010

Attracting Butterflies

Attracting butterflies to your property can be hard work. It can also be greatly rewarding. Your overall goal when trying to attract butterflies is to provide a place for all life stages of the butterfly. There are many plants that will attract butterflies. The following list of wildflowers are native to Iowa and are in order of those that are used by a higher number of species: milkweeds, clovers, asters, goldenrods, Queen Anne's Lace, Joe Pye Weed and Blazing Star. Adding any of these species to your landscape is sure to attract butterflies. You will also want to be aware of where you plant them, since they will attract bees and other pollinators.

Emerald Ash Borer in Iowa!

The Emerald Ash Borer has entered the woodlands of Northeastern Iowa, according to the Iowa Emerald Ash Borer Team. The Iowa Emerald Ash Borer Team includes officials from the Iowa Department of Agriculture and Land Stewardship (IDALS), Iowa State University Extension, Iowa DNR, USDA Animal Plant Health Inspection Service (APHIS) and the USDA Forest Service.

Since 2003, this group has been looking for signs of EAB in Iowa using visual surveys, sentinel trees, trap surveys, inspecting nursery stock, visiting sawmill/wood processing sites, as well as providing hundreds of educational programs. This year some 1,800 purple traps have been placed at high-risk areas in the state. The Iowa DNR has also set up 412 trap trees in the state, 12 of which are in Allamakee County. We know of one purple trap set up in Mills County.

In May, the Emerald Ash Borer Team discovered EAB in Allamakee County, just south of the Minnesota border along the Mississippi River. Last year there were reports of a single EAB larvae being found in Clayton County, which is adjacent to Allamakee County, but reports do not state if they were able to find any more in that location. The Iowa Department of Agriculture and Land Stewardship (IDALS) will begin containment measures by quarantining all wood and nursery stock from Allamakee County before they make any decisions regarding quarantining the whole state.

The Emerald Ash Borer is a non-native, invasive, metallic-green beetle measuring one quarter to a half inch in length. Being native to eastern Asia, this species has few natural predators in the United States, other than woodpeckers who feed on the larvae. Ash is one of the most abundant native tree species in North America.

Emerald Ash Borers have already caused havoc upon many millions of Ash trees found in urban and woodland landscapes in the Midwest. There are nearly

100 million ash trees (green, white and black) in Iowa's woodlands and urban settings.

The EAB female beetle will deposit 60-80 eggs in the crevices of Ash bark. When the eggs hatch, the larvae burrow under the bark and feed on the cambium (growing) layers. The larvae do this for several weeks. This feeding drastically slows the transport of nutrients and water through the tree. When adult EAB beetles emerge (typically in early June), they emerge head first through a D-shaped exit hole that is an eighth of an inch in diameter. Native ash borers leave round or oval exit holes that are larger or smaller (depending on species) than an eighth of an inch. The adult EAB beetles will feed on the leaves of the Ash trees after they emerge, mate and the process repeats, since EAB beetles only live for about 3 weeks. Ash trees will usually die within 5 years of the onset of EAB activity, if not treated.



Image from www.forestryimages.org

Symptoms to look for in EAB infested trees:

Abundance of woodpecker holes, D-shaped exit holes, S shaped larval tunnels under bark, top kill of tree, abundance of small sprouts near the base of the tree.

EAB was first discovered in Michigan in 2002 and has since been spreading through adjoining states. The beetle is thought to have arrived in pallets and shipping crates from China as early as the 1990s due to the high volume of EAB found in Michigan. The beetle is able to fly up to 5 miles, which means it can travel over rivers and other obstacles. However, when campers haul infested firewood with them to campgrounds they may transport the beetle into new territory.

When EAB was discovered, the United States Department of Agriculture required that firewood should be debarked as well as kiln dried to be compliant with the federal regulations for transporting products out of state from a quarantined area. The USDA now requires that firewood vendors who harvest firewood from quarantined areas have the bark as well as an additional half inch of the wood removed and / or follow a kiln drying treatment to be able to ship the firewood out of state.

The home improvement store chain, Menards, was part of a pretty serious situation involving EAB and infested firewood in 2007. Their firewood supplier was harvesting wood from quarantined areas and not following

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the USDA's protocol for interstate shipments of wood products originating from quarantined areas. The USDA told Menards to stop the shipments until the company was in compliance with the USDA's regulations. The USDA inspected the firewood and required a certification sticker on future shipments of firewood from the supplier. An inspection of the supplier in April of 2007 found that they were no longer in compliance with the regulations and the company and Menards were forced to issue a recall. The firewood was removed from Menards stores and shipped back to their Distribution Centers as requested by the USDA. It is unknown exactly when the company initially started violating the USDA's terms, but by April many of the bundles had been purchased from the stores. Since this event, Menards has found a new firewood supplier and has sued the previous company for damages.

Iowans can prevent the spread of Emerald Ash Borer by taking off the bark of dead Ash wood and inspecting it. If you need firewood, buy it from a local source and use it all while you are in that location. Fines for not complying with the quarantine can range from \$100 to \$1,000. Many campgrounds provide firewood for a "donation", while others sell firewood to campground visitors. Please keep that in mind when you are contacting campgrounds this camping season and remember to ask about their local firewood sources.

If you were looking to plant an ash tree soon, there are many other trees that could be substituted for ash, including: native oaks, hybrid elms, maples, hackberry, hornbeam, American Lindens as well as many others.

To learn more about EAB, including treatments, please visit the following websites:

www.IowaTreePests.com

www.iowadnr.gov/forestry/eab/index.html

www.extension.iastate.edu/PME/EmeraldAshBorer.html

Iowa's Water & Land Legacy Amendment

Iowa voters will have an opportunity on November 2, 2010 to vote for Iowa's Water and Land Legacy constitutional amendment. The amendment would, for the first time in Iowa's history, establish a constitutionally protected trust fund to preserve Iowa's natural resources and outdoor recreational opportunities. Specifically, the amendment will create the Natural Resources and Outdoor Recreation Trust Fund which will provide a permanent, reliable and accountable revenue source to improve water quality and natural areas in Iowa, in addition to aiding in conservation of agricultural soils and restoring wetlands to protect against future flooding.

Recent data from the Iowa Department of Natural Resources shows that 53% of Iowa's water sources rate "poor," and Iowa currently loses an average

of five tons of soil per acre each year due to erosion. As of today, Iowa ranks 47th out of 50 states in funding for conservation, despite the fact that more than 27,000 Iowa jobs are supported by outdoor recreation.

County Conservation Boards would benefit directly through increased funding for the Resource Enhancement and Protection (REAP) program and funds allocated through the Local Conservation Partnership Account as part of the new Trust Fund.

Additionally County Conservation Boards would be able to compete for increased grant funds for soil and watershed improvement and lake restorations as well as trail development.

A vote for Iowa's Water and Land Legacy Amendment is a vote for the creation of the Trust Fund – not a vote for a tax increase. Revenue for the Trust Fund will come from allocating 3/8ths of one cent from sales tax revenue the next time the Iowa legislature raises the state sales tax – providing the Trust Fund an estimate of \$150 million per year.

This funding recommendation was based on over three years of research and study conducted by a legislative advisory committee. In 2008 and 2009, more than 90 percent of Iowa's state legislators overwhelmingly approved the legislation which allows voters to vote on the amendment this November. Iowa would join Missouri, Arkansas and Minnesota as states to approve constitutional amendments to dedicate funding for natural resource conservation.

For more information, visit:

www.iowaswaterandlandlegacy.org

Meet Your WILD Mills County Neighbors!

This issue's "*neighbor*" is the butterfly with a royal name, the Monarch butterfly, *Danaus plexippus*. The Monarch is a large (up to four inches) orange butterfly that has black veins on the wings and two rows of white spots in a black border around the edge of the wings.

The Monarch butterfly is one of the most well-known butterflies. Thousands of Monarch butterflies migrate every fall to escape the cold winters in the northern United States and Canada. They leave these places and travel thousands of miles to warmer locations like California and Florida, but the majority end up in the Sierra Madre mountains of central Mexico. When they arrive, the butterflies cover fir trees in a blanket of orange and black. The horde of Monarchs rest here until they begin the trek back to their northern origins in the spring.

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The Monarch butterfly goes through complete metamorphosis, which means it has a 4 stage lifecycle beginning with the egg, then the larvae (caterpillar), followed by the pupae (chrysalis) and then the adult butterfly. There are usually four generations of Monarch butterflies produced each year. Generations one through three will complete their life cycles in roughly a month, while the fourth generation will live up to 8 months and will travel up to 50 miles per day on the migration south. Very few (maybe one in one million) complete the trip back to their northern origins.

Male Monarch butterflies have scent glands that can easily be seen as a dark spot along a 'vein' on the hind wings. These glands are used to attract females to mate. Most Monarch females will lay their eggs on the underside of the leaves of milkweed plants found along the migration route back to their northern origins and then die before completing the trip.

When the eggs hatch in three to twelve days, the caterpillars will feed on the milkweed leaves for two weeks until they reach nearly two inches in length. At this point, the caterpillar will move to the underside of a leaf (or other structure) and hang upside down from an anchor point and begin forming its distinctive green chrysalis with the gold spotted ring. The process of building the chrysalis only takes a few hours to complete, and the transformation from caterpillar to butterfly will take up to two weeks. The chrysalis will change from green to transparent as it gets close to time for the Monarch butterfly to emerge. At this time, you can clearly see the colors of the wings through the chrysalis.

Monarch pupae will sometimes die while in the chrysalis. Many things can cause this: a fungal infection, temperature snaps. If you start to see black spots through the chrysalis, there's a really good chance the Monarch will not survive. If the overall color of the chrysalis becomes black (with absolutely no hint of orange), the pupae has died and should be removed from the container right away. This is especially true if you have more than one caterpillar in the container. If you notice your caterpillar hanging in an upside down U shape for a prolonged period of time (hours), it has most likely picked up a parasite and has died.

When the adult Monarch butterfly emerges from the chrysalis, they will hang there for a while, resting and unfolding their wings to allow them to dry before flying away to repeat the life cycle all over again.

If you would like to watch the transformation of a Monarch butterfly, you can do so very easily. Find a milkweed plant and search for the Monarch caterpillar. Carefully remove the caterpillar from the milkweed plant (with the leaf, if possible), and place it into a clear container that has a mesh window screen like cover on the top. The container should be cleaned out at least once every other day, and fresh milkweed leaves should be put

in until the caterpillar forms its chrysalis on the mesh lid. At this point, be careful not to jolt the container too much, and wait for the butterfly to emerge. Do not open the container until at least an hour after the butterfly emerges. This gives the wings time to expand and harden enough for it to be able to fly away when you release it outside, preferably near some flowers.



UPCOMING EVENTS

JULY

7/31/10

1 pm

Afternoon Canoe Float @ To be announced

Join us for a relaxing float down the Nishnabotna River. Space is extremely limited for this event. Call to register and for more details.

AUGUST

08/14/10

9 am - Noon (for ages 10-15)

Beginner Fishing! @ Pony Creek Lake Access

Fishing is a great way to spend some quality time with your family. Learn how to identify many of Iowa's fish, how to tie knots, how to cast and what baits can be used. We will also have a 5 hole "Best Shot" casting challenge course set up! Pre-registration is required. Call for more details. Adults are required to remain through duration of program.

SEPTEMBER

9/25/10

7 pm

Evening Canoe Float @ Mile Hill Lake

Join us for a relaxing evening canoe float to celebrate the coming of Fall. Space is extremely limited for this event. Call to register and for more details.

To pre-register for these events or to ask questions, please call James at (712) 527-9685. Thank you.

The Mills County Conservation Board is able to accept, in the name of Mills County, any gifts, bequests, contributions and appropriations of money or other personal property for conservation purposes. Your tax-deductible donations, and our grant writing, promote the growth and betterment of our facilities for the enjoyment of the citizens of Mills County and its many visitors.