



Helping People Help the Land

Conservation Notes

USDA - Natural Resources Conservation Service - Michigan



March - April 2013

Michigan Envirothon Heads to MSU

Twenty four high school teams from across the state will converge on the campus of Michigan State University on May 8 to compete in the Michigan Envirothon state competition. The overall winner of the event will go on to compete on the campus of a different MSU in August at the Canon North American Envirothon.

All 24 teams, which represent 12 high schools, competed at regional competitions to earn the right to advance to East Lansing. Michigan Envirothon is an outdoor environmental competition where teams of four students are tested on their environmental knowledge and skills. The annual event is sponsored by the Michigan Association of Conservation Districts.

Team enrollment was up 20 percent from 2012, said Michigan Envirothon Coordinator Angela Sandusky. Envirothon divides the state into six geographic regions and each region had at least one team competing, she said. East Lansing High School had their first team ever compete in 2013 while several other schools returned to Envirothon after not participating in recent years.

In all, 34 teams enrolled for Envirothon in 2013, the top teams were selected during regional competitions held in March. During the regional competition, students received instruction



Students measure tree height using clinometers during the Michigan Envirothon region one competition at Bay Mills Community College in Brimley.

- photo provided by Michigan Envirothon

from resource professionals before competing in a hands-on competition where their skills are tested in knowledge categories including agriculture, aquatic ecology, energy, forestry, soils and geology, and wildlife.

“The competitions are very hands-on, not classroom lectures,” said Sandusky.

Students at the regional competition in Brimley took to the woods in snowshoes for the forestry portion of the competition, Sandusky said.

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State Conservationist's Message

The week of April 21 is National Volunteer Week. Earlier this month I traveled to Gaylord to present Maureen Stine with her National Earth Team Award.

Maureen was honored for providing environmental education to school children in northern Michigan. She was also honored as an outstanding educator by the American Forest Foundation for her work with Project Learning Tree.

Congratulations to Maureen and all of our Earth Team Volunteers for the important work they do promoting conservation.

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On May 17, we will begin ranking applications for a second round of funding for four conservation initiatives. Funding is available through the USDA's Seasonal High Tunnel for Crops, Drought, Organic and Air Quality initiatives.



Every spring seems to bring a new challenge to Michigan farmers. Last year early warm weather, followed by freezing temperatures, severely impacted many fruit growers. This year has brought cold temperatures and flooding to many parts of the state.

Conservation practices like cover crops, grassed waterways and conservation tillage helped to reduce the environmental impact of spring flooding for many farmers.

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Earth Day was April 22 and many organizations held events and celebrations. In Lansing, the State of Michigan held an educational event outside of Constitution Hall. Students from as far away as Flint and Detroit attended the environmental education event. NRCS was represented with a display teaching students about cover crops and soil health.

National Volunteer Week April 21 - 27

National Volunteer Week is April 21-27 the NRCS theme for this year is "Celebrate Volunteers." We have a lot to celebrate. Earth Team Volunteers allow us to stretch available resources and help us put conservation practices on the ground.

In 2012, Michigan's 58 Earth Team Volunteers worked 3,168 hours completing a variety of projects which included: Conservation Planning and Technical Consultation, Clerical Services, Natural Resource Inventory and Assessment, Outreach and Communications, and Human Capital just to name a few. We can and must do more – Earth Team volunteers can be our answer.

Michigan had 35 percent office participation in 2012 and is striving to place volunteers in more offices this year. Recently the Sault Ste. Marie and Bad Axe field offices and the Plant Materials Center enrolled new volunteers to assist them in their work. These new volunteers will help these offices out in many different ways.

All this month everyone is encouraged to thank our volunteers. Do something special in your office, to thank them for what they are doing for you, our customers and the land.

Please contact Teresa Moore, Earth Team Coordinator, at 517/324-5264 or via e-mail at teresa.moore@mi.usda.gov if you have any questions or suggestions.

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Students Compete to Represent Michigan at Canon Envirothon

Resource professionals from conservation organizations like NRCS, conservation districts and the Michigan Department of Agriculture and Rural Development provide instruction to the students at the regional and state competitions. The opportunity to interact with people who work in environmental and science-based professions is one of the benefits of competing in Envirothon. Many Envirothon competitors go on to pursue science-related careers, including some who have found jobs with NRCS.

In addition to head-to-head competition, each team also completes a community outreach project. Students select an environmental concern in their community and create a project to address the issue or expand awareness. Some past projects include collecting used fishing line to protect wildlife, building and monitoring habitat for threatened species, and helping their schools become more energy efficient. Each team gives a presentation describing their project at the state competition.

The overall winner of the state competition will go on to represent Michigan at the Cannon North American Envirothon along with teams from across the United States and Canada. The Cannon Envirothon changes location every year, the 2013 competition is at Montana State University in Bozeman. Michigan Envirothon assists the winning team with the cost of competing at Canon Envirothon.

Several conservation districts provide financial support to their local Envirothon teams including the Berrien, Chippewa/Luce/Mackinac, Leelanau, and Tuscola conservation districts.

For more information about Michigan Envirothon including how to register a team, visit: macd.org/ME/about-envirothon.html.



NRCS Area 4 Resource Soil Scientist GayLynn Kinter teaches students about soil characteristics during the Michigan Envirothon regional competition at the Kresge Environmental Education Center in Lapeer (above). Students from Glenn Lake High School learn about wildlife during their regional competition in Traverse City (below).
-photos provided by Michigan Envirothon



Grass Windbreaks Stand up to Michigan Winters

Early trials of fast growing grasses as living snow fences in Michigan are encouraging. Varieties of switch grass and other upright grasses held up to winter conditions in northern Michigan and the Upper Peninsula in initial trials.

Grasses have advantages over shrubs and trees for use in windbreaks because they establish themselves much faster. Tests in Michigan show that they can be effective in trapping snow by their second, or even first year, after being planted from plugs.

Rows of switch grass planted in Antrim County started out as 8-inch plugs and grew to 2 feet by winter, said District Conservationist Pepper Bromelmeier. The switch grass was planted in two staggered rows of 200 feet. The living snow fence was planted along a ridge next to a county road and held back snow the first year, said Bromelmeier.

Switch grass was a good choice for a windbreak because the landowner didn't want to lose his view of Lake Michigan. The grass should reach a height of about 5 feet and can be mowed or cut to a lower height if necessary, said Bromelmeier.

State Agronomist Jerry Grigar looked for an upright variety of switch grass for the trial and plugs were purchased from a Michigan nursery. The plugs cost about \$300 and were installed in about an hour with a crew of five people.

The NRCS Plant Materials Center in East Lansing will plant grass snow fences in five locations in June to see how they stand up to winter conditions. The field trial plots will be planted in three locations in the Upper Peninsula as well as in Antrim and Kalkaska counties, said PMC Manager John Leif.

The PMC trials will plant different grasses and evaluate survival rates for the plantings and how the plants stand up to drifting snow. Snow depth measurements will be collected to see how the grasses perform as living snow fences, said Leif. Geographic Information System



A windbreak of switch grass was planted in Antrim County (above) to help prevent snow from drifting across a county road.

software will be utilized in the trial to determine the porosity of the windbreaks.

"It's really slick," Leif said of utilizing GIS in evaluating the trials.

The trials will be used to develop criteria for utilizing the grasses in the hedgerow practice standard, said Grigar. Like the windbreak and shelterbelt practice standard, the plantings will need to achieve a 65 percent density to function as effective windbreaks. Different plant and row spacing will be tested to determine how to achieve at least a 65 percent density. The information gathered will be used to develop row width and spacing for the hedgerow planting standard.

When planting the grass for windbreaks, site-specific weather data of prevailing winds for months with historically heavy snowfall will be utilized. For example in Alger County, the grass windbreaks will be planted in an east to west direction on the north side of roads, said Grigar. In Chippewa County the hedgerows will be planted in a north to south direction on the west side of roads.

Many Americans Lack Easy Access to Healthy Food

The last major grocery store chain serving Detroit closed its store in 2007. The closing left 500,000 people in a “food desert” without access to healthy and affordable food, said Marcus A. Coleman, executive director of New World Flood.

Coleman was the featured speaker at a Black History Month program organized and held for USDA employees in East Lansing.

With no major grocery retailers in the Detroit area, which has an 81 percent African American population, residents rely on fringe retailers who offer higher prices and a limited selection of fresh fruits and vegetables, Coleman said. This has led to an increase in obesity and other related health problems like diabetes.

Poor access to fresh healthy foods is not a condition unique to Detroit or even to urban areas. In the United States, 2.3 million people live more than a mile from a super market and have no access to a car, said Coleman.

Although studies in Detroit have shown that many residents eat unhealthy foods, they will purchase fresh fruits and vegetables if they are available and affordably priced. Peaches and Greens, a non-profit grocer in Detroit, gets over 70 percent of its revenue from fruit sales. Surveys



Marcus A. Coleman, executive director of New World Flood, spoke about the lack of affordable food choices in Detroit and other communities referred to as “food deserts” as part of the USDA’s Black History Month celebration on Feb. 28.

also showed that Detroit residents wanted a variety of fruits and vegetables and would buy them if they were promoted at local stores.

The Black History Month program was organized by a committee of employees from USDA agencies including NRCS, Rural Development, the Farm Service Agency and Forest Service. The program was held at Greenstone Farm Credit Services.

GovDelivery Helps People Connect with USDA

GovDelivery is a new tool for government agencies, including NRCS, to communicate with its customers and partners.

GovDelivery is a service that allows the public to receive direct communications by subscribing online. NRCS-Michigan recently activated its GovDelivery account. Anyone can subscribe to the NRCS GovDelivery account by visiting the NRCS-Michigan website. When visiting the website, look for a link like that above or the red envelope.



When users click the GovDelivery icon, they will be asked to select which topics they want to receive communications from. Some

topics available from NRCS-Michigan include news releases, newsletters, forestry and soils. Subscribers will have the choice of receiving GovDelivery bulletins immediately, daily or weekly. Users can unsubscribe from GovDelivery at any time.

Media organizations as well as individuals can subscribe to receive news releases directly from NRCS.

What is Good Habitat?

By Bill Cook, MSU Extension forester

The term “wildlife habitat” conjures up different meanings for different people. Some of these meanings contradict each other. Management practices that “improve” habitat will benefit some species but will also discriminate against others.

It’s usually a bit misleading to hear people mention that a management practice is “good” for wildlife, even though the notion has a warm fuzzy feeling. Such statements offer an opportunity for education, or at least clarification. Any practice is both good and bad, depending upon which species of wildlife are considered. What people probably mean is that a management practice might be good for their favorite species. Often, they don’t or aren’t aware of other species’ habitat needs.

Habitat, in an ecological sense, incorporates physical characteristics in the landscape within which a particular species can find basic life cycle requirements such as food, water, and cover (e.g. shelter, nesting, etc.). There are about as many sets of requirements as there are species. Species can be animal or plant or other living organism.

Alternatively, when one gazes upon a forest or wetland, there is a sense of habitat quality that loosely incorporates the numerous physical characteristics of that particular landscape. One can imagine how well those characteristics might suit their particular favorite species.

If the habitat appears to satisfy the needs of those favorite species, the gazer deems the habitat “good.” If the gazer discerns something lacking, then perhaps the habitat will be perceived as “bad.” Humans tend to qualify the goodness of something by using personal preferences. Sometimes, those preferences are even rooted in science-based knowledge.

Confusion can easily erupt with the complexity of species requirements and human perception.

In a certain sense, there is no such thing as “bad” habitat. As an extreme example, even a parking lot has some attributes favorable for some species. Take for instance; if you’re a gull, that parking lot has plenty of tidbits to glean from trash that has been left behind by unthinking shoppers. If gulls were the only species of interest, might parking lots be considered critical habitat?

Ecologically, each vegetation type has a range of natural attributes. A type with a full set of attributes would be considered high-quality habitat. A habitat progressively loses functionality with the absence or reduction of each natural attribute. For example, a northern hardwood forest might be missing den trees, standing snags, or large

dead trees on the ground. That forest doesn’t possess the full range of attributes; therefore, it is not as high quality, in an ecological sense, as a similar forest that does have the full range. However, it is still a bountiful resource.

Of course, management can alter the characteristics of a particular vegetation type or can create an altogether different type. Management can restore lost habitat components. A similar dynamic occurs with long-neglected forests.

The goals of a forest owner may not include all the natural attributes of a forest type. Continuing with the northern hardwood example, an owner may wish to manage for maximum tree quality and monetary value. In the process, those den trees, standing snags, and large dead-and-down trees may not have much importance to the owner. The forest continues to possess most habitat attributes but the loss of some ecological



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richness will reduce the potential for wildlife species dependent upon den trees, snags, and old logs. In this way, an owner may unintentionally lessen the aesthetic appeal of their woodland.

Similarly, folks will often evaluate habitat through the lens of a favorite wildlife species, such as white-tailed deer. "Good" habitat is often gauged by seeing lots of deer. "Bad" habitat doesn't have many deer. The habitat may have huge missing pieces and may not be sustainable, nevertheless it will be deemed good if deer can be easily seen while hunting. Habitat quality extends beyond the last half of November.

Conversely, good deer habitat, from an ecological perspective, will likely be more diverse and may have more deer than what can be easily seen, even when a fair-sized deer population exists. To the casual observer, if they ain't easy to see it ain't good. Good deer habitat will provide enough cover so that deer aren't so easily seen.

This same "lens viewing" idea might be applied to many other species and situations. Endangered species management, such as Kirtland's warbler, results in a more narrow-focused habitat perspective due to federal and state laws. In some

cases, this practice may be warranted and will yield net benefits over time and space.

The manner in which we manage, or don't manage, forest habitats and larger landscapes often has more to do with what we want to see, what we think we see, and less about measures of ecological function. Sometimes, conflicts arise between forest users with different viewpoints. Occasionally, those conflicts carry considerable political charge and significant economic consequence.

In the end, it might be helpful to remember that all habitat has value and all habitat will naturally change with time, assuming it's not replaced by some other land use. Obtaining professional wildlife management advice will help owners better understand some of the complexity and, hopefully, lead to more satisfying ownership benefits.

Bill Cook is an MSU Extension forester providing educational programming for the Upper Peninsula. His office is located at the MSU Forest Biomass Innovation Center near Escanaba. The Center is the headquarters for three MSU Forestry properties in the U.P., with a combined area of about 8,000 acres. He can be reached at cookwi@msu.edu or 906-786-1575.

NRCS Highlights Cover Crops at Lansing Earth Day Event

The Michigan Departments of Environmental Quality, Natural Resources, and Agriculture and Rural Development hosted an Earth Day celebration on April 18 at Constitution Hall in Lansing.

The event featured education exhibits for school groups and children. NRCS participated with an event demonstrating the use of cover crops to improve soil health and prevent erosion.

Agronomist John Durling of the NRCS Plant Materials Center (right) explains cover crops at an April 18, Earth Day event in Lansing.



Conservation Notes - March/April 2013

Upcoming Events - Upcoming Events - Upcoming Events

May

- 3 Michigan Soil and Water Conservation Society Highway Cleanup, noon, East Lansing - meet in NRCS State Office parking lot
- 8 Gardening with Natives Workshop, 6:30 to 8 p.m., Kent Conservation District - Grand Rapids, for more information go to www.kentconservation.org or call, 616/942-4111
- 8-10 Michigan Envirothon State Competition, Michigan State University - East Lansing, for more information go to: macd.org/ME/about-envirothon.html
- 11 Clean Sweep/Household Hazardous Waste Collection, 9 a.m. to noon, Isabella County Fair Grounds - Mt. Pleasant, for more information call 989/772-9152 ext.3
- 15 Native Plants Natural Gardening Choice Workshop - Presented by Vern Stephens of Designs by Nature, 7 p.m., Branch Conservation District - Coldwater, Cost \$5, for more information or to RSVP, call 517/278-2725 Ext. 5
- 18 Coldwater River Stream Team Macroinvertebrate Sampling Day, 8:30 a.m. to noon, Branch Area Career Center - Coldwater, for more information or to RSVP call 517/278-2725 Ext. 5

May ctd.

22 Coldwater River Stream Team Macroinvertebrate Bug ID Night, 5 to 9 p.m., Branch Area Career Center - Coldwater, for more information or to RSVP call 517/278-2725 Ext. 5

June

- 8 District Native Plant Sale, Branch Conservation District office - Coldwater, 10 a.m. to 3 p.m., (Native Plant Pre-orders are currently being taken - Due May 30th), for more information go to www.branchcd.org
- 15 Breakfast on the Farm, 9 a.m. to 1 p.m., Reid Dairy Farm - Jedd (St. Clair County), for more information go to www.breakfastonthefarm.com
- 19 2013 On Farm Field Day presented by Branch and Saint Joseph Conservation Districts, Mark Hacker Farms - 1275 Mendon Rd. - Athens, for more information or to RSVP, call 517/278-2725 Ext. 5

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