


# Master Gardener Update

## June 2018

<p><b>In this Issue</b></p> <p>Leaf Cutter Bee</p> <p>Why are Native Plants Better for Pollinators than Non-Natives?</p> <p>RPMGA June Program: Weed ID</p> <p>Rotary Gardens Botanical Talk: Square Foot Gardening and Raised Beds</p> <p>Resource: DATCP Pest Bulletin</p> <p>National Pollinator Week</p> <p>Mustard Pour to Detect Jumping Worms</p> <p>Volunteer Opportunities</p> <p>Education Calendar</p>	<p><b>Pollinator Project</b></p> <h3>Leaf Cutter Bee</h3> <p><i>Megachile</i> sp. (meg-uh-KILE-ee)</p> <p><b>Description:</b> Leafcutter bees are small to medium-sized (.4 to .8 inch) fuzzy insects. They are a rather smoky color, have stout bodies and rather flattened abdomens with pale hair bands. Females often have a broad head to accommodate the large mandibles they use for cutting leaves. The head and body are combined with an (often) upturned abdomen. Females carry dry pollen on a patch of hair (the scopa) on the underside of their abdomens.</p>  <p>They belong to a larger group of about 242 species of <i>Megachile</i> bees or leaf cutting bees in North America that also includes other leaf cutters as well as mason bees; these are all very good pollinators some with very interesting habits. <i>Megachile</i> forages on a wide range of flowers as well as some species which specialize on foraging certain plants such as those in the Aster (<i>asteraceae</i>) and pea (<i>fabaceae</i>) families. <i>M. rotundata</i> is an introduced species from Eurasia which is commonly used commercially to pollinate alfalfa. There is also the giant resin bee (<i>M. sculpturalis</i>), which arrived from Asia in recent years; no one knows how.</p> <p style="text-align: right;">(continues)</p>
---	--

## Websites

### UW Extension Rock County:

rock.uwex.edu

### RPMGA Blog:

rpmga.blogspot.com

### Rotary Gardens:

rotarybotanicalgardens.org

### Wisconsin Master Gardener Program:

wimastergardener.org

### Wisconsin Master Gardener Association (WIMGA):

wimga.org

All *Megachile* live solitary lives. Most exhibit similar habits and behavior. They are cavity nesters, living in pre-existing cavities, natural or artificial. They use abandoned beetle tunnels, hollow plant stems, gaps behind loose tree bark, nesting blocks, hose pipes and other suitable holes. Some species in the Southwest will dig nests in the ground, often in loose, sandy soil. *M. addenda* build their nests in the sandy banks adjacent to cranberry bogs along the Atlantic coast.



When lining the cells within their nest they will cut particular sizes and shapes to use in different parts of the cell. The cell's sides are made with oval shaped pieces and closed with circular pieces. Cells are each approximately 1/2-inch long and provisioned with a ball of plant nectar and pollen. One egg is laid in each cell. Leafcutter bee eggs hatch into small larvae or grubs. They consume the stored food as they grow and develop. After several weeks the larvae transform into adults and emerge from the cells.

**Management:** Commonly attacked plants include roses (both foliage and flower petals), redbud, lilac and ash foliage, though other plants may be attacked as well. (My first experience with leafcutters was in the foliage of a Japanese Maple in my side yard.) The holes present no true damage, more a curiosity than a threat. Controls are rarely justified. Bees are beneficial pollinators and should be encouraged and protected rather than controlled through wide-spread use of insecticides.

The female leafcutter bees cut disks of foliage from nearby plant leaves and/or blossoms and place them within existing cavities to line and separate individual brood cells or chambers – smooth side in. A single female may cut as many as 10,000 foliage disks during her life-time. Some gardeners believe *Megachile* are harmful to plants because of their cutting activities, but their leaf cutting and stem nesting activities only cause cosmetic damage.



(continues)

The only true conservation issue occurs in parts of California and the Southwest. *M. apicalis* is believed to usurp the nests of native leafcutters. It is a specialist pollinator of the invasive yellow star-thistle (*Centaurea solstitialis*) and may contribute to its spread.

Fast fact: It only takes two or three seconds for a female *Megachile* to cut a piece of leaf (or flower petal). Just before she finishes cutting the leaf, the female starts to beat her wings so that she is already flying by the time the leaf fragment is severed.

### Sources:

Iowa State University, Extension and Outreach, Horticulture and Home Pest News – Leaf Cutter Bees

USDA Forest Service – Leaf Cutting Bees, *Megachile* spp. By Beatriz Moisset

Attracting Native Pollinators: Protecting North America's Bees and Butterflies – Leafcutter Bees - Xerces Society

## **Why are native plants better for pollinators than non-natives?**

Dr. Gordon Frankie is a professor at the Department of Environmental Science, Policy and Management at the University of California at Berkeley. He specializes in Urban Entomology. City bugs. For 21 years he has worked to further the understanding of pollinators and he has found some ground-breaking information. His research has shown that native plants are better choices for pollinator habitat than non-native plants. He learned that natives are four times more likely to attract native bees than non-native species. Planting native vegetation significantly increases populations of butterflies and moths.

Dr. Douglas Tallamy of the Department of Entomology & Wildlife Ecology at the University of Delaware has shown that native plants support three times as many species of butterflies and moths as do their non-native counterparts. Dr. Tallamy is author of best-selling garden book, ***“Bringing Nature Home: How You Can Sustain Wildlife with Native Plants.”*** He researches how plants that evolved elsewhere impact food webs and biodiversity. Another of his discoveries was even more exciting. He found that native woody plants used as ornamentals support 14 times as many species as non-native species.

OK. That all sounds really good, but what else should I know about the difference between natives and non-natives? There must be more, right? Well, there is – most definitely.

Natives plants offer significant advantages over non-natives because:

- They do not require fertilizer (wow – seriously?),
- Require fewer pesticides, if any, for maintenance,

- Require less water than non-natives (this just keeps getting better and better),
- Provide permanent shelter and food for wildlife,
- Are less likely to become invasive than non-natives, and,
- Promote local native biological diversity.



#### 1. *Buddlja*: Friend or Foe?

Non-native ornamentals bred for their beauty, like some varieties of viburnum, pansies and double-petaled sunflowers, may not provide enough pollen or nectar to support pollinator populations. Those characteristics may have literally been bred out of them. But that's just the tip of the proverbial iceberg. When used in a pollinator prairie butterfly bush (*Buddelja davidii* – a plant many of us have come to see as a given as a pollinator plant) can become invasive and colonize natural areas at the expense of diverse native plant populations. Research carefully before buying. It's amazing what you can learn.

Then there is availability. Oftentimes desirable natives are not available locally as sets or do not transplant well – so seeds may be the best option. But there is a caveat here, as well. Know what you are buying. Shopping for local ecotypes (seed and plant stock harvested from a local source) can help maintain or increase genetic diversity of nursery stock. So – shop locally whenever possible. If that is impossible, look for seed that is certified for purity and viability.

Because part of the goal of our pollinator project is to plant and maintain pollinator gardens, I would highly recommend we visit Agrecol in Evansville this year if possible. Let me know if you're interested by sending me an email at [mastergardenermary@gmail.com](mailto:mastergardenermary@gmail.com) or calling me at 608-322-4800. I'll make all the arrangements. All you'll have to do is show up. There is so much we can do to teach people about pollinators. A field trip like this could be as beneficial as a morning in a classroom. The more we can learn, the more we can pass on to others.

Mary K. Thompson



## RPMGA June Program: Weed ID

They're up and spreading! That scourge of gardeners everywhere, weeds. Some you know on sight. But others are a mystery—especially in the seedling stage, when it's hard to tell the weeds from the plants you want to keep.

Here's your chance to learn who tall, green and leafy really is. Dig up that weed, pot it or wrap it in damp towels so it stays fresh, and bring it in. If you can get the same type of weed in different stages of growth, even better. Together, we'll work to identify what you have. If no one recognizes your weed, or to find more information about it, we'll use the UW's Weed ID application to confirm what you have and how best to get it under control. By the end of the evening, you'll be able to recognize more troublemakers on sight, plus you'll learn how to use the Weed ID program

most effectively. Bring your laptop, tablet or smart phone to get the most from this program.

Date/Time/Location: Thursday, June 7, 2018. 5:30-7:00 p.m. Hedberg Public Library, in the Public Meeting Room on the first floor (off the coffee shop).

**Save the date:** on Thursday, July 12 from 10 a.m. to 1 p.m. you're invited to tour the home gardens of three of your fellow master gardener volunteers in the Janesville area. Details to come on the blog and in next month's newsletter!

## Rotary Gardens Botanic Talk: Square Foot Gardening and Raised Beds, Tuesday, June 26, 6:30-8:00 p.m.

Square-foot gardening has been around since the 1970's. Mel Bartholomew wrote the original square-foot gardening book and now has a new version out which is just as popular as the first one. This is a simple system based on 4-foot by 4-foot raised beds divided into simple one-foot square grids that are raised from the ground.

Lisa Johnson, a certified Master Gardener Volunteer from the Dane County UW-Extension will give you ideas for creating your own square-foot gardening beds, a recipe for square-foot garden soil, selecting and growing your plants and successfully harvesting your crops. You will also hear techniques for raised bed gardening and types of raised bed gardens, like the pizza garden, that is popular with kids.



**Cost:** \$7 non-member, \$5 RBG Members; includes printed and note taking materials (where applicable), admission to Rotary Botanical Gardens, and light refreshments. Tickets to this event may be purchased at the door, or online, in advance.

**Please note:** if you would like to view the Gardens, please arrive with time prior to the beginning of the presentation as the Gardens close at 8:00 p.m. Those under 16 must be accompanied by an adult, who is also required to purchase a ticket.

## **Do you know this resource? Wisconsin Pest Bulletin**

Every two weeks during the growing season, the Department of Agriculture, Trade and Consumer Protection (DATCP) publishes the Wisconsin Pest Bulletin. In it, you'll find detailed information from entomologists on what insects and diseases are currently active, where they've been reported, what ones are likely to become active soon, and so forth.

It's not surprising they have sections on forages and grains, corn, and soybeans. But it's not just farm crops. They also have sections on vegetables, fruits and nursery/forest plants. The vegetable section of the May 17<sup>th</sup> issue, for instance, covers onion maggots, Colorado potato beetles, cucumber beetles, seed corn maggots, and late blight prevention. Discussions are brief, but informative, and there are great photos of each of the insects so you can easily identify them. It's an education! If you're a geek at heart, check out the chart of the current year's degree days for various locations throughout the state. (The closest location to us is Beloit.)

You can subscribe to the bulletin and have it delivered to your email automatically. To find it online, just search using the title: Wisconsin Pest Bulletin.

## **June 18-24, 2018 is National Pollinator Week**

Governor Scott Walker joined many other governors in proclaimed June 28-24 to be Pollinator Week: a time to focus on the insects and animals that do so much to bring food to our tables and make our world more beautiful. Pollinator Week is actually a national event that occurs annually. It was initiated by the Pollinator Partnership. The group hopes to encourage people to "celebrate pollinators and spread the word about what you can do to protect them." So take some time that week to learn a little more about birds, bees, butterflies, beetles, and bats. Or talk to your children or grandchildren about what you can do to help our pollinators thrive.

## Using a Mustard Pour to Detect Jumping Worms

Check your property for earthworms using a mustard pour (it won't harm your plants!) Mix a gallon of water with 1/3 cup of ground yellow mustard seed and pour slowly into the soil. The solution is a skin irritant that will drive any worms to the surface. If you have jumping worms, report it and avoid moving plants or soil from your yard.

Dispose of all live worms in the trash or place them in a (black plastic) bag and leave out in the sun for at least 10 minutes. Then throw bag away.

Excerpt from – [Cornell University - Jumping Worm Fact Sheet](#)

## Volunteer Opportunities:

**Rotary Gardens Workdays.** Volunteer work days are scheduled for Saturday mornings 8:00 a.m.-noon on June 2, 9 and 16, and Wednesday evenings, 6:00-8:00 p.m. on June 6 and 13. Just bring your gloves and show up.

**Wednesday, June 13: Rotary Gardens Community Day Youth Activities.** 1.) Volunteers needed from 10:45 a.m. to 1:15 p.m. to help with a variety of children's activities in connection with the unveiling of the new Story Walk. 2.) Any time from 9 a.m. to 8 p.m. (set your own time): volunteers to talk with families viewing the story walk about what we can learn from the featured story and how parents can encourage children to expand the knowledge gained from the story. Frog knowledge would be essential for this volunteer opportunity. For either 1.) or 2.), contact Barb Converse, [mastergardenerbarb@gmail.com](mailto:mastergardenerbarb@gmail.com).

**Sometime in June: Fairgrounds Demo/Pollinator Garden.** Volunteers needed to help put together the demonstration garden at the Rock County fairgrounds. The garden includes an herb-based pollinator section, plus several vegetable beds. A date/time have not been set (we'll find a mutually agreeable time). If you can help please contact Deb Grams, [debgrams@yahoo.com](mailto:debgrams@yahoo.com).

**Saturday, June 16: Janesville Farmers Market.** Shifts are 8 to 10:30 or 10:30 to 1. We're looking for one or two people per shift to help give out free seeds and talk to people about gardening. Contact Ruth Flescher, [yafello2@gmail.com](mailto:yafello2@gmail.com), for information or to volunteer.

**Seed Saving Basics talk for August.** Looking for a few volunteers willing to help develop and/or give a one-hour talk on the fundamentals of seed saving that we can give at several of the area libraries in conjunction with the new Arrowhead Heirloom Seed Library. If you're interested, contact Ruth Flescher: [yafello2@gmail.com](mailto:yafello2@gmail.com).

**Saturday, July 21: Rotary Gardens Home Garden Tour.** Docents (and ticket takers) needed for two shifts at each of the eight sites on the day of the event, plus a general orientation beforehand and an orientation to your assigned site. If interested, contact the Volunteer Department at [volunteer@rotarygardens.org](mailto:volunteer@rotarygardens.org)

**Ongoing: Newsletter Contributor.** We'd like to start a feature for this newsletter along the lines of "Get to Know Other MGVs." Would you be willing to contact other MGVs to interview (possibly photograph) them, then write up a short biography? Schedule can be flexible. Contact Ruth Flescher: [yafello2@gmail.com](mailto:yafello2@gmail.com).

## June Education Calendar

For details on any of these education opportunities, search the web using the program title and/or organization name.

**NCG = Nicholas Conservatory Garden, Rockford; MPL = Milton Public Library; WCMG = Walworth County Master Gardener Association, Lake Geneva; OBG = Olbrich Botanical Gardens, Madison; UWA = UW Arboretum, Madison; ACG = Allen Centennial Garden, Madison; WEC = Welty Environmental Center, Beloit; AJG = Anderson Japanese Garden, Rockford, WHPS = WI Hardy Plant Society, Madison; NATC = Nature at the Confluence, South Beloit, IL.**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				Simply Spring Butterfly Exhibit through June 3 NCG	<b>1</b>	<b>2</b> Prairie Insects of Big Hill Park WEC
<b>3</b> Pond & Wetlands Walk UWA	<b>4</b> Seed Saving MPL	<b>5</b>	<b>6</b> Hoard Museum Grounds Tour WCMG	<b>7</b> Weed ID RPMGA	<b>8</b>	<b>9</b>
<b>10</b> Greene Prairie Walk UWA/ Summer Buzz Family Walk UWA	<b>11</b>	<b>12</b> Children in the Garden WHPS	<b>13</b> Woodland, Savanna and Prairie Gardens UWA	<b>14</b>	<b>15</b> Fireflies in the Garden OBG (with a child)	<b>16</b> Design, Create, Build: Walls ACG/ Children's Garden Dedication NATC



<b>17</b> Flora of Japan OBG/Curtiss Prairie Walk UWA	<b>18</b>	<b>19</b>	<b>20</b> What's Blooming UWA	<b>21</b> Native Bee House Workshop OBG/ Summer Solstice Night Walk UWA/ Anderson Gardens: The Early Years AJG	<b>22</b>	<b>23</b>
<b>24</b> Prairies and Savannas on the Grady Tract Walk UWA/A Wisconsin Prairie UWA/ Grasses & Interesting Perennials to Enrich Your Garden Design WHPS	<b>25</b>	<b>26</b> Square Foot Gardening & Raised Beds RBG	<b>27</b> Repurposed Containers OBG/ Bat Night in the Garden AJG	<b>28</b> Evening Garden Tour in Stoughton WHPS	<b>29</b> Strawberry Moon Night Walk UWA	<b>30</b>

An EEO/AA employer, University of Wisconsin-Extension provides equal opportunities in employment and programming, including Title VI, Title IX, and the Americans with Disabilities Act (ADA) requirements.

UW-Extension Rock County, 51 S. Main Street, Janesville, WI 53545