

Master Gardener Update

October 2018

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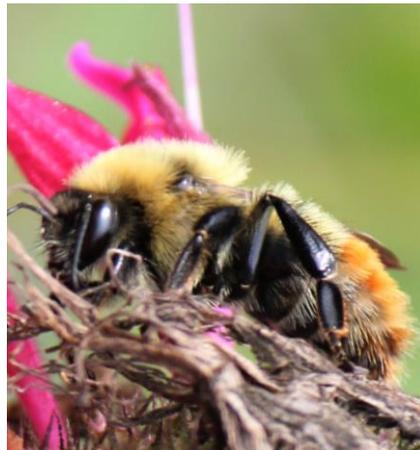
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A Buzzy Summer with the Bumble Bee Brigade

Ann Pedder Riley

Field trip #115, Bumble Bee citizen science, was just what I was looking for: an intriguing topic at a convenient time and location. I didn't realize that participation in this class would make me a member of the Department of Natural Resources (DNR) Bumble Bee Brigade.



A male Red Belted bumblebee

The Bumble Bee Brigade (B3) is a monitoring program that relies on citizen observers to develop an accurate map of bumble bee distributions within Wisconsin. Historically, twenty species of bumble bees have been found in Wisconsin, but population records are outdated and much is unknown about bee biology and current distribution. Of these twenty species, one is federally endangered, seven are state species of greatest conservation need (SGCN) and three are state species of information needs (SIN).

The premise of B3 is simple. Select a location to survey and note the number and kind of bumble bees you see. Photograph each type of

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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

bumble bee - taking pictures of the back, side and face of the bee. After the survey, review your photographs and select the best three to five pictures of each bee. Lastly, submit information to the DNR about the survey site and the bees you saw, including the pictures. The reality is much more difficult.

I came to this program with virtually no knowledge of bumble bee species or their morphology (form and structure). To make accurate observations, I would need to identify each species and the gender of the bees I saw. In a selected physical location, no more than 100 feet in diameter, I would need to note the number of each type of bee and whether it was male or female...or a queen.

One way to tell the gender of a bee is to count its abdominal segments. Males have seven segments with a rounded end whereas females have only six segments with a small, pointy end. Many bumble bee identification guides use a representation of coloration by abdominal segments. The color pattern of each segment is key to identifying the species of a bee. It is easy to identify a female bee if she is carrying pollen. She will have an oblong, orange blob attached to her hind leg. A bee without pollen could also be female. The upper back leg on females is larger and surrounded by stiff bristly hairs. This structure is the pollen carrying basket called a corbicula. It can be seen even when it is empty. Queen bees are usually much larger than a female worker bee of that species.

To help identify bees, we were given a laminated field guide showing the common coloration of the backs of bees. Since male and female bees of the same species don't always look alike, the pictures were grouped by gender. We learned, however, that bees have "morphs" – color variations within each species that can



The Riley pollinator garden in late September

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A female federally-endangered Rusty Patch bumblebee

complicate identification. There are red belted bees who have no red coloring at all! These variations are like hair color in people; blondes, redheads and brunettes are the same species despite this color difference.

At the completion of the class, I was feeling overwhelmed. I wondered how I could gather all the required information with my limited knowledge of bumble bees. I found the answer in an alternative way to report bee sightings: the incidental survey.

The incidental survey was designed to capture a bee observation that was not part of a more structured survey. I decided that I would learn to survey bees by trying to identify the ones that frequented my pollinator garden. This approach let me work through the identification process one bee at a time. And the pictures are a tremendous aid in clarifying the species and gender of the bees.

I started observing bees in July. I have been amazed at how much I've learned – and at the diversity of bumble bee visitors to my 25 by 10 foot pollinator garden. The DNR has verified six bumble bee species in this garden including the federally endangered Rusty Patch. I am awaiting verification of two additional species.

Through this activity, I have become familiar with bumble bee characteristics and can identify several species by sight. Scientific names such as *Bombus rufocinctus* and *Bombus affinis* are now part of my vocabulary. I have successfully identified queens of two different species. I am planning my first small area survey at a nearby garden where I think I've seen some different bees.

Most of all, I've become a fan of these gentle, giant bees. I have seen them defer to wasps and other insects or share a flower. Despite my brushing through the garden plants and sticking my nose close up to them, most bumble bees have not bothered me. I have not been stung. Friends have patiently listened to me share my experiences; some plan to join B3 next summer. My participation in the Bumble Bee Brigade added a new, fulfilling dimension to my summer. I look forward to continuing as a citizen scientist with this program.



RPMGA: Final Tour of the Summer Season: Regenerative Roots and Cultivating the Commons

Friday, October 5, 1:00-2:30 p.m.

Spend a Friday afternoon getting a behind-the-scenes look at an organic vegetable farm/CSA--plus a close-up look at what it takes to grow seeds for sale!

Regenerative Roots is a small, certified organic farm that uses a number of permaculture techniques. It's located just north of Fort Atkinson, WI. The business began on rented space in 2012, and moved to its current location in 2013. Regenerative Roots now cultivates about two acres in diversified produce. In addition to weekly CSA share deliveries during the season, and holiday shares in November and December, partners Dennis Fiser and Clint Freund sell their produce at the Fort Farmers Market through October, and at the Whitewater

winter market.

According to their website: "Our mission is to be a responsible steward of the soil. We are committed to a highly diverse ecology for producing food which encompasses perennials, livestock, and fungi alongside annual vegetable production. We envision the farm as an educational space for ourselves and the community. We minimize the use of fossil fuels by using human power, gravity, and passive energy systems in its place. We would like to keep the farm at a manageable size, where we can observe and participate in all of its aspects. We believe all of these values will help produce high quality food to nourish the land, ourselves and our neighbors in an ecologically regenerative and economically sustainable way." Cultivating The Commons is Clint's seed business, also based on the farm. He raises seed for organic, open-pollinated vegetables and flowers. "Look to us for seedwork, breeding, and general nerdy seed stuff!"

Should be a fun time and a great chance to learn!



*Clint Freund of Regenerative Roots/
Cultivating the Commons*

continues

Address: W6635 Kiesling Road, Jefferson, WI (between Fort Atkinson and Jefferson)

Date/Time: 1:00 p.m. Friday, October 5, 2018

Meet to car pool: 12:15 p.m. at the north end of Janesville Mall (by Steinhafels Mattress), near the road.



**RPMGA Event: Making and Using Compost in Your Backyard,
Tuesday, October 2, Hedberg Public Library, 6:00-7:30 p.m.**

Want to improve the health of your lawn and help your plants, flowers and vegetables to grow? You already know compost is a great way to reach those goals. Get started or refresh your information with tips and techniques from a team of your fellow Master Gardener Volunteers.

Learn about why to compost, what to include (or not to include!), how to control the process to get the best results in the least amount of time, how to adapt compost strategies to match your approach to gardening, and different ways to corral that pile.

Free and open to the public. Join us!

Did you send in your timesheet and association dues?

If you want to be a certified Master Gardener Volunteer for 2018/2019, you should have sent in your completed time sheet showing at least 24 hours of volunteer time and 10 hours of continuing education during the 2017/2018 year. (Due date: October 1, 2018) If you haven't done so, get it to Tara Hanley at the UWEX office in the courthouse (51 S. Main Street, Janesville, WI 53545) as soon as possible. Need the form? Timesheets can be printed from this website: <https://wimastergardener.org/toolbox/>. Click on the paperwork box, and select the 2018 form to print.

If you wish to be a member of the Rock Prairie Master Gardener Association and/or Wisconsin Master Gardener Association, annual dues should be included with your timesheet. (Or mailed separately if you forgot.) RPMGA dues are \$15 for the year for the first MGV in each household, and \$5/year for each additional MGV in the same household. WIMGA dues are \$5/year. Please write a single check payable to RPMGA for either or both and send it to Tara in the Extension office. RPMGA will forward your info and dues to WIMGA.



Rotary Gardens Event: Fall Symposium, Saturday, November 3, 8:00 a.m. to 3:00 p.m.

Register now for Rotary's annual Fall Symposium! On the agenda: Samantha Peckham, Horticulture Supervisor, Cantigny Park, will address garden design for plantaholics. Dr. Laura Jull, Associate Professor and Extension Specialist for Woody Ornamental Horticulture, UW-Madison, will be talking about landscape plants and climate change. And Rotary's own Mark Dwyer, Director of Horticulture, will discuss the joys and uses of ornamental grasses in the garden. Refreshments, including continental breakfast and boxed lunches, are included in the registration fee. As always, a great selection of silent auction items will be on hand and winning bid results will conclude the day.

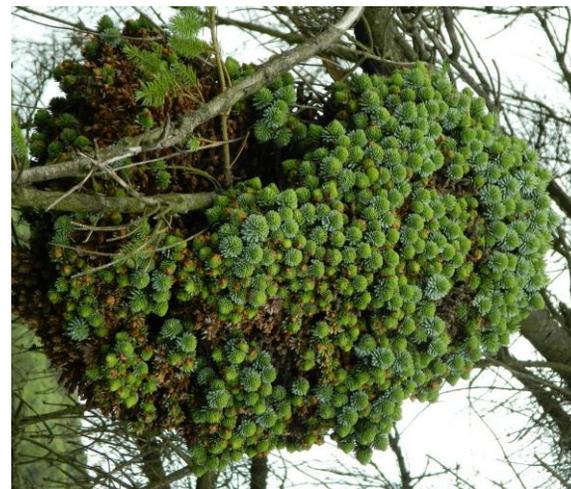
Register online, by mail or at the gardens by October 26. Fee is \$69 for members and \$79 for non-members. In addition to continental breakfast and lunch, the fee includes all speaker handouts, education materials, instruction and activities. Check-in begins at 8:00 a.m., program starts at 9:00. Use the extra time to enjoy morning refreshments, stroll the gardens, catch up with friends or check out the silent auction items.

Rotary Gardens Event: Botanic Talk: The Other Witches' Brooms— Gems of the Conifer World, Tuesday, October 23, 6:30-8:00 p.m.

Learn about dwarf and unique conifers and their origins! Joe Braeu, internationally known 'broom collector', will share his adventures of searching the forests for the mutations, propagating his finds, and the wonderful conifer delights as they mature.

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.



A witches' broom on a silver fir.



RPMGA Donates to WIMGA Silent Auction

When WIMGA asked if we could donate a basket for the silent auction to take place at their statewide Master Gardener conference, we thought about what made the most sense. A pollinator theme seemed the obvious answer. The Solitary Bee Basket started with information: the book *100 Plants to Feed the Bees* and a copy of the WI Bee Identification Guide. The remainder of the items were essentials for a pollinator garden: makings for a bee & butterfly waterer and instructions for its use; a nursery box for solitary bees, with instructions for its use and placement, plus materials to replace the tubes as needed; and, finally, 15 different packets of seeds with growing instructions for the native flowers solitary bees (and other pollinators) prefer and need to survive. The seeds were chosen to have bloom times that range from spring to fall, and were collected by RPMGA members from gardens they tend.

Volunteer Opportunities:

Ongoing, RPMGA Program Planning and Coordinating for 2019. One or two people needed to help plan and arrange programs and tours for next year. If interested, contact Ruth Flescher (yafello2@gmail.com) or Mary Kay Thompson (mastergardenermary@gmail.com).

October 3, 10, 12, 17, 26, Prairie Seed Collection for Dane County Parks, 9:00 a.m. till noon, locations vary. Volunteer with the Dane County Parks to collect prairie seed at various parks throughout October. No experience necessary. Tools and training provided. See the website (<https://parks-lwr.dane.gov/Event/Home/Index/12>) for details.

October 6, Saturday, Ecological Restoration Work Party—Grady Tract, UW Arboretum, Madison, 9:00 a.m. to noon. Volunteer for restoration activities and learn about prairies and savannas. Tools and training provided. Groups welcome with advance notice. Meet at Grady Tract parking lot, southeast corner of Seminole Hwy. and W. Beltline Frontage Rd. More information: (608) 265-5214 or marian.farrior@wisc.edu.

October 10, Wednesday, Prairie Seed Collection, Pope Farm Conservancy, Middleton, WI, 9:30 to 11:30 a.m. No experience necessary, but registration for the event is requested.

October 13, Saturday, Prairie Seed Collection, Crossridge Park, Milton Parks Department. Contact the city's parks department for exact details.

October 20, Saturday, Volunteer Work Day, Rotary Gardens, 8:00 a.m. to noon. No experience necessary. Please bring gardening gloves. Instruction and tools provided. 10 a.m. refreshment break.

October 20, Saturday, Ecological Restoration Work Party—Grady Tract, UW Arboretum, Madison, 9:00 a.m. to noon. Volunteer for restoration activities and learn about prairies and savannas. Tools and training provided. Groups welcome with advance notice. Meet at Grady Tract parking lot, southeast corner of Seminole Hwy. and W. Beltline Frontage Rd. More information: (608) 265-5214 or marian.farrior@wisc.edu.

October 27, Saturday, Ecological Restoration Work Party—Core Area and Curtiss Prairie, UW Arboretum, Madison, 9:00 a.m. to noon. Volunteer for restoration activities and learn about prairies and savannas. Tools and training provided. Groups welcome with advance notice. Meet at the Visitor Center. More information: (608) 265-5214 or marian.farrior@wisc.edu.

September Education Calendar

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

OBG = Olbrich Botanical Gardens, Madison; HPL = Hedberg Public Library, Janesville; UWA = UW Arboretum, Madison; NCG = Nicholas Conservatory Gardens, Rockford, IL; SFCP = Silverwood Farm County Park, Edgerton; WCMGA = Walworth County Master Gardener Association, Lake Geneva; RBG = Rotary Botanical Garden, Janesville; WEC = Welty Environmental Center, Beloit; WHPS = Wisconsin Hardy Plant Society, Madison; UI = University of Illinois Extension, Winnebago County, Rockford, IL; UWH = Univ. of WI-Madison Dept. of Horticulture, Madison.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
October 1-27: Gleam light art display at OBG	1	2 Making and Using Compost in Your Backyard HPL/Aldo Leopold Was for the Birds UWA	3	4	5 Tour of Regenerative Roots and Cultivating the Commons RPMGA	6 Conifers UWA/ Hydroponics NCG
7	8	9 Citizen-based Monitoring in WI UWA/ Golden-rod Gall Fly WEC/ Plant Pathogenic Viruses UIEX	10 Orchids WCMGA/Small Scale Native Trees and Shrubs OBG	11	12	13 Fall Favorites Tour UWA/ Harvest Festival SFCP
14 The Science of Autumn Colors UWA/Woodlands Full of Color Walk UWA	15	16 Fall Gardens with Big Impact OBG	17 Will Radler, Creator of Knock-Out Roses WHPS	18	19	20 Dying Grass Moon Night Walk UWA/ Let's Get Batty NCG

21 Red Lanterns Walk UWA	22	23 The Other Witches' Brooms – Gems of the Conifer World RBG/Native Shrubs for Your Landscape OBG	24	25	26	27
28 Colorful Days UWA	29	30 Harvest of Ideas Organic Ag Forum UWH	31 Harvest of Ideas Organic Ag Forum UWH			

Looking Ahead to November:

The following events are early in November but require pre-registration in October. Check website for details. Programs are at Olbrich Botanical Gardens in Madison, unless otherwise noted.

Fall Symposium at Rotary Botanical Gardens, Janesville, Saturday, November 3, 8:00 a.m.- 3:00 p.m., registration deadline: October 26.

Native Beauty – Flower Arranging, Sunday, November 4, 1:00-2:30 p.m., registration deadline: October 29.

All About Owls, UW Arboretum, Madison, Saturday, November 3, 2:00 – 4:00 p.m., registration deadline: October 29.

Garden Trends, Wednesday, Nov 7, 6:30 – 8:00 p.m., registration deadline: October 31.

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

