

Sow and Tell

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Member of the National Capital Area Garden Clubs, Central Atlantic Region, District III

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President's Message

New Year's Resolutions! Yes, it's that time again.

Our usual resolutions, "Eat Less, Exercise More, No Wine on Weekdays, and Figure Out my Car's Navigation System" are often hard to sustain, but we try! However, there are small environmental and conservation resolutions that we can make that may "stick" a little longer. I recently communicated with about 15 catalog companies asking them delete me from their mailing lists, thus saving a small tree! Making a choice to email receipts from stores, reducing thermal paper receipts is easy to do. There is tons of information (pun intended!) on the massive amount of plastic in our oceans. Reducing consumption of single use plastics, which are everywhere, is manageable. Once I became more aware of plastic packaging in stores I truly changed the way I shopped. I'm also finally remembering to bring my reusable grocery bags. You may have seen the story in the news about a confrontation in a McDonald's regarding plastic straws! We don't need to go to such extremes but we are slowly adjusting our expectations and habits for the benefit of our environment. These resolutions will put us in the perfect frame of mind to benefit from our January speaker's presentation on climate change and its effect on our gardens. I look forward to seeing everyone in the new year at our meeting on Tuesday, January 15. ~ Julia



General Meeting:
Tuesday, January 15, 2019

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January Program ~ Sara Via

“Climate Change Affecting Nature and Our Gardens”

Dr. Sara Via, a professor and climate change specialist for the University of Maryland, will tell us about effects of climate change and how they significantly impact gardens and home landscapes. We will learn strategies for adapting to change and improving our chances for gardening success.

<https://extension.umd.edu/hgic/earth-friendly/climate-change-and-gardening>

CALENDAR

JANUARY

Tuesday, Jan 15 FH General Meeting & ‘Simmering Scents Workshop’ afterwards
Friday, Jan 25 Flower Show School Registration Deadline

FEBRUARY

Friday, Feb 1-3 Flower Show School
Monday, Feb 25 Garden Therapy, Braddock Glen, 9:15, Theme: “Winter”

Word of the Month: Ballochory

The word means seed dispersal by ballistic means or “explosive dehiscence.” Think how ripe Touch-me-not (Jewelweed, *Impatiens capensis*) seed pods explode to shoot their seeds out, or of that tiny but ominous popping sound when you brush against invasive Hairy bittercress, *Cardamine hirsute*. That’s ballochory at work. Another one which will spread in this way is Carolina Wild-petunia. Allochory refers to any of many types of seed dispersal where a vector or secondary agent is used to disperse seeds — wind, water, and animals.

Flower Show School in February

National Capital Area Garden Clubs, our parent organization, offers four different educational schools. Many of us in the last couple of years have taken courses in Landscape Design, Gardening Studies and Environmental Studies schools. Flower Show School has not offered courses for several years but Course 1 is now scheduled for **Friday, Feb. 1 and Saturday, Feb. 2 with the exam in the morning of Sunday, Feb. 3.** Attached is the registration form and paper copies will be available at the January meeting. You can also register online with the link from the website: ncagardenclubs.org. The deadline to register is Friday, January 25.

You can download the forms you need by visiting this website:

https://drive.google.com/file/d/1K-VCpMd0C4UBWN8U_YVmJlo5GEM_TyzG/view

Our January 15th Meeting will feature: Simmering Scents Workshop!

Please be on the lookout for a separate email with details about this fun fundraiser, featuring fruit, spice and herb combinations. This will be a fun and easy fundraiser and will be held immediately after the general meeting.



Thursday, January 10, 7:30 - 9 pm

Green Spring Gardens Horticultural Center, Alexandria

“How Plants Move”

A program presented by Charles Smith. Learn how plants disperse across land and water, reproductive strategies, niche exploitation, plant community composition and what the future may look like considering the fragmented condition of our landscape and climate change.

**Sunday, January 27, 1:30 pm
Green Spring Gardens**

Members may be interested to attend this local soon-to-be-aired documentary. There will be a discussion following the film:

“Five Seasons: The Gardens of Piet Oudolf”

<https://www.fairfaxcounty.gov/parks/green-spring/lecture/gardens-piet-oudolf>

Saturday, February 23, 9 am to 3:30 pm, The Hill School, 130 S. Madison Street, Middleburg, VA

2019 Middleburg Horticultural Symposium

“Planting Outside the Lines”

The Fauquier and Loudoun Garden Club invites you to this symposium. There are four speakers, and fees to attend. For information and registration, visit this site:

<https://www.flgardenclub.org/Symposium2019/2019Symposium.html>



Our Five Hills family sends healing wishes to Anita Parke for a speedy recovery as she recuperates from her recent surgery. Best wishes, Anita!



Blue Star Memorial

Thanks to Noreen Linnemann for sending in recently taken photos of our Blue Start Memorial located close to the Bike Trail and Vienna's Red Caboose. As shown here, it is looking beautiful with hellebores emerging as well as bright-red-berried Wintergreen. Well done to the gardeners who have maintained it so well.

Horticulture: Let It Snow!



For the hort table: bring in something from your garden that is in its glory right now, whether from a tree, shrub or plant. Is there anything in bloom in your garden? Do bring specimens to the meeting and share them with us. Also, share any horticultural specimen you have that might provide us with a 'teaching moment'.

Floral Design: Bring in an arrangement you've made using Snowdrops. Alternatively, create a design that suggests snow, ice or winter's blast.

2019 Perennial Plant of the Year®

by Ann Balch

The Perennial Plant of the Year program, sponsored by the Perennial Plant Association (PPA), began in 1990 to showcase a perennial that is a standout among its peers. Each year's winner is chosen by vote by the members of the PPA, a professional organization of growers, wholesalers, retailers, landscape designers, horticulturists, and garden writers – in other words, the members cover the entire horticulture industry. While in its essence a gigantic marketing program, it is also an excellent source of information for all gardeners. Each year's selection often becomes the "go to" plant for the year. And the list of past selections is a valuable source of candidates for our gardens.

Several years ago, a number of Five Hills members chose to plant **Amsonia hubrichtii** when it was selected. Mine has now grown into a large clump that is lovely in the spring, and more importantly, a spectacular golden yellow in the fall.

Each year's plant is selected based on these criteria:

- Suitability for a wide range of climatic conditions
- Low maintenance requirements
- Relative pest- and disease-resistance
- Ready availability in the year of selection
- Multiple seasons of ornamental interest

The selection for 2019 is **Stachys 'Hummelo'** - a bee-friendly midsummer bloomer with magenta flowers above bright green foliage. The plant spreads slowly by creeping rhizomes. It is considered deer-resistant. The seed heads add to winter interest in the garden.


Perennial Plant of the Year - Past Winners

The most recent winners are listed below. The complete list can be found online though the web site is changing, so please just google for it.

- 2018 Allium 'Millenium'
- 2017 Asclepias tuberosa (Butterfly Weed)
- 2016 Anemone x hybrida 'Honorine Jobert'
- 2015 Geranium x cantabrigiense 'Biokovo'
- 2014 Panicum virgatum 'Northwind'
- 2013 Polygonatum odoratum 'Variegatum'
- 2012 Brunnera macrophylla 'Jack Frost'
- 2011 Amsonia hubrichtii
- 2010 Baptisia australis
- 2009 Hakonechloa macra 'Aureola'
- 2008 Geranium 'Rozanne'
- 2007 Nepeta 'Walker's Low'

Stachys 'Hummelo'

Bee friendly!



Hardiness
USDA Zones 4 to 8, foliage may remain evergreen in warmer climates.

Light
Full sun to part shade.

Soil
Well drained soil, water as necessary.

Uses
This colorful and compact winner makes an excellent addition to the full sun perennial border. Terrific in combination with ornamental grasses, Echinacea purpurea, and Asclepias tuberosa (2018 Perennial Plant of the Year®). Wiry stems make for a great cut flower as well.


Unique Qualities
Pollinators can't resist the striking midsummer spikes of magenta flowers rising above bright green, trouble-free foliage. 'Hummelo' was the highest rated Stachys in the Chicago Botanic Garden Evaluation Trials for its strong flower production, vigor, habit, quality and winter hardiness.

Maintenance
Spreads slowly by creeping rhizomes. May benefit from division every few years. Strong stems and seed heads add to winter interest. Considered deer-resistant!

2019

Perennial Plant of the Year®

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Photo credit: Paul Westervelt
Brochure content thanks to Holly Stappeler, Ph.D., Virginia Tech Horticulture and Paul Westervelt, Rainieria Brothage



“Study Shows Massive Insect Loss”

(excerpts from a *Washington Post* article
by Ben Guarino, October 2018)

Many thanks to the Washington Post for much of this information. Plant more trees — they help cool the world. Happy New Year, Elizabeth Huebner

Going along with our topic for this month, effects of climate change on nature and our gardens. We now have scientific research showing a whopping 83% decrease in bugs which in turn found forest's insect-eating animals have gone missing too. Who knew we would be worried about not enough bugs?

Insects around the world are in a crisis, according to a small but growing number of long-term studies showing dramatic declines in invertebrate populations. A [new report](#) suggests that the problem is more widespread than scientists realized. Huge numbers of bugs have been lost in a pristine national forest in Puerto Rico.

In 2014, an international team of biologists estimated that, in the past 35 years, the abundance of invertebrates such as beetles and bees had [decreased by 45 percent](#). In places where long-term insect data are available, mainly in Europe, insect numbers are plummeting. A study last year showed a 76 percent [decrease in flying insects](#) in the past few decades in German nature preserves.

The latest report, published in October in the *Proceedings of the National Academy of Sciences*, shows that this startling loss of insect abundance extends to the Americas. The study's authors implicate climate change in the loss of tropical invertebrates.

[Bradford Lister](#), a biologist at Rensselaer Polytechnic Institute in New York, has been studying rain forest insects in Puerto Rico since the 1970s. If Puerto Rico is the island of enchantment — “la isla del encanto” — then its rain forest is “the enchanted forest on the enchanted isle,” he said. Birds and coqui frogs trill beneath a 50-foot-tall emerald canopy. The forest, named El Yunque, is well-protected. Spanish King Alfonso XII claimed the jungle as a 19th-

century royal preserve. Decades later, Theodore Roosevelt made it a national reserve, and El Yunque remains the [only tropical rain forest](#) in the National Forest system.

“We went down in '76, '77 expressly to measure the resources: the insects and the insectivores in the rain forest, the birds, the frogs, the lizards,” Lister said. Now, 40 years later what the scientists Lister and Garcia did not see on their return troubled them. “Boy, it was immediately obvious when we went into that forest,” Lister said. Fewer birds flitted overhead. The butterflies, once abundant, had all but vanished.

García and Lister measured the forest's insects and other invertebrates, a group called arthropods that includes spiders and centipedes. Researchers trapped arthropods on the ground in plates covered in a sticky glue, and raised several more plates about three feet into the canopy. The researchers also swept nets over the brush hundreds of times, collecting the critters that crawled through the vegetation.

Each technique revealed the biomass (the dry weight of all the captured invertebrates) had significantly decreased from 1976 to the present day. The sweep sample biomass decreased to a fourth or an eighth of what it had been. Between January 1977 and January 2013, the catch rate in the sticky ground traps fell 60-fold.

The study authors also trapped anole lizards, which eat arthropods, in the rain forest. They compared these numbers with counts from the 1970s. Anole biomass dropped by more than 30 percent. Some anole species have altogether disappeared from the interior forest.

Insect-eating frogs and birds plummeted, too. Another [research team](#) used mist nets to capture birds in 1990, and again in 2005. Captures fell by about 50 percent. Garcia and Lister analyzed the data with an eye on the insectivores. The ruddy quail dove, which eats fruits and seeds, had no population change. A brilliant green bird called the [Puerto Rican tody](#), which eats bugs almost exclusively, diminished by 90 percent.

The food web appears to have been obliterated from the bottom. It's credible that the authors link the cascade to arthropod loss, Schowalter said, because "you have all these different taxa showing the same trends — the insectivorous birds, frogs and lizards — but you don't see those among seed-feeding birds."

Lister and Garcia attribute this crash to climate. In the same 40-year period as the arthropod crash, the average high temperature in the rain forest increased by 4 degrees Fahrenheit. The temperatures in the tropics stick to a narrow band. The invertebrates that live there, likewise, are adapted to these temperatures and fare poorly outside them; bugs cannot regulate their internal heat.

A recent analysis of climate change and insects, published in August in the [journal Science](#), predicts a decrease in tropical insect populations, according to an author of that study, [Scott Merrill](#), who studies crop pests at the University of Vermont. In temperate regions farther from the equator, where insects can survive a wider range of temperatures, agricultural pests will devour more food as their metabolism increases, Merrill and his co-authors warned. But after a certain thermal threshold, insects will no longer lay eggs, he said, and their internal chemistry breaks down. The authors of a 2017 study of vanished flying insects in Germany suggested other possible culprits, including pesticides and habitat loss. Arthropods around the globe also have to contend with pathogens and invasive species.

"It's bewildering, and I'm scared to death that it's actually death by a thousand cuts," Wagner said. "One of the scariest parts about it is that we don't have an obvious smoking gun here." A particular danger to these arthropods, in his view, was not temperature but droughts and lack of rainfall.

Lister pointed out that, since 1969, pesticide use has fallen more than 80 percent in Puerto Rico. He does not know what else could be to blame. The study authors used a recent [analytic method](#), invented by a professor of economics at Fordham University, to assess the role of heat. "It allows you to place a likelihood on variable X causing variable Y," Lister said. "So we did that and then five out of our six populations we got the strongest

possible support for heat causing those decreases in abundance of frogs and insects."

The authors sorted out the effects of weather like hurricanes and still saw a consistent trend, which makes a convincing case for climate.

"If anything, I think their results and caveats are understated. The gravity of their findings and ramifications for other animals, especially vertebrates, is hyper-alarming," Wagner said. But he is not convinced that climate change is the global driver of insect loss. "The decline of insects in northern Europe precedes that of climate change there," he said. "Likewise, in New England, some tangible declines began in the 1950s."

No matter the cause, all of the scientists agreed that more people should pay attention to the bugpocalypse.

"It's a very scary thing," Merrill said, that comes on the heels of a "gloomy, gloomy" U.N. report that estimated the world has little more than [a decade left](#) to wrangle climate change under control. But "we can all step up," he said, by using more fuel-efficient cars and turning off unused electronics. The Portland, Ore.-based Xerces Society, a nonprofit environmental group that promotes insect conservation, recommends planting a [garden](#) with native plants that flower throughout the year.

"Unfortunately, we have deaf ears in Washington," Schowalter said. But those ears will listen at some point, he said, because our food supply will be in jeopardy.

[Thirty-five percent](#) of the world's plant crops require pollination by bees, wasps and other animals. And arthropods are more than just pollinators. They're the planet's wee custodians, toiling away in unnoticed or avoided corners. They chew up rotting wood and eat carrion. "And none of us want to have more carcasses around," Schowalter said. Wild insects provide \$57 billion worth of six-legged labor in the United States each year, according to a 2006 estimate.

The loss of insects and arthropods could further rend the rain forest's food web, Lister warned, causing plant species to go extinct without pollinators. "If the tropical forests go it will be yet another catastrophic failure of the whole Earth system," he said, "that will feed back on human beings in an almost unimaginable way."