

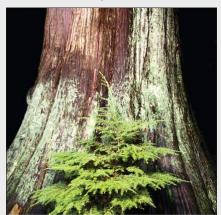
EXPLORE - ENJOY - PROTECT

Spring Newsletter Content

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Community Meeting The

Prince George's County
Department of the Environment is
hosting the second virtual
community meeting on the Climate
Action Plan on Thursday, June 24,
6:30-8:30 PM. Your input is
needed! Come join the
conversation about the evolving
Climate Action Plan and proposed
actions for reducing greenhouse
gases and helping our communities
adapt to the changing climate.
Click here to register.



FINDING THE MOTHER TREE

Discovering the Wisdom of the Forest

SUZANNE SIMARD

Big Ideas Discussion

Suzanne Simard's research about the 'wood wide web' through which trees communicate has fundamentally changed concepts about the nature of forests. Join the discussion of her new book on June 27

Our Evolving Climate Action Plan and the Role of Green Infrastructure

By Janet Gingold

On May 21, the Prince George's County Climate Action Commission approved a list of priorities for the creation of more specific recommendations for inclusion in the Climate Action Plan. The list includes five overarching changes to how the county does business--commitment to the transition from fossil fuels to renewable energy; meaningful community engagement; strengthening regulation of land use regarding smarter growth, natural resource conservation and green infrastructure; leading by example; and building capacity needed for implementing actions to address climate change, both short term and long term. These items, along with 22 priority actions to decrease greenhouse gas emissions and adapt to a changing climate by increasing resilience in our communities, will be further refined and explained in blueprints for implementation over the next few months. Public input through the Climate Action Plan comments form and during the community meetings this summer will be crucial.

Some of the change we need for addressing the climate crisis involves wide-scale adoption of existing new technologies, such as solar energy, electric vehicles, and more energy-efficient heating, ventilation and cooling systems, and changes to our human-built infrastructure like greener buildings, streets, and transit systems. However, we must also seek better ways to work with the nature-built green infrastructure that sustains us all. We must preserve and enhance the network of natural areas described in our Green Infrastructure Plan – not only because of their beautiful biodiversity but also because they can decrease the severity of threats to human health and wellbeing that come with a changing climate.

The term *Green Infrastructure* has different meanings in different disciplines, so when we hear this term used, we need to be sure we know what is meant. In Prince George's County's approved 2017 Green Infrastructure Plan, the meaning of Green Infrastructure was expanded to embrace a full spectrum of features -- green roofs and energy efficient buildings, stormwater methods, urban green spaces, forest and tree canopy, diverse ecosystems, open space, and connected natural areas, stream valleys, and watersheds. All of these features have important roles to play in decreasing greenhouse gas emissions and adapting to a changing climate.

"Trees are an important part of the answer to climate change," said Climate Action Commissioner Gary Allen. "We need nature-based solutions for carbon sequestration, and to decrease the heat island effect and risk of flooding. Only by slowing the loss of green infrastructure and demanding new growth to mitigate future loss can we fully benefit from one of the easiest and most cost-effective ways to achieve the goals the Climate Action Commission seeks."

Climate experts remind us that forests act as a carbon sink; plants take carbon out of the air and use it to build their trunks and branches, roots and leaves. Carbon locked away in cellulose doesn't trap atmospheric heat. But if we only look at the carbon cycle, we miss the essential functions that trees play in regulating the flow of water, moderating temperature, and creating the chemical composition of the air, water, and soil that enables other living things—including humans--to survive and thrive.

Summer approaches. When temperatures get well into the 90s, it gets hard to enjoy the out of doors. Concrete and asphalt make ovens of urban spaces. Playground surfaces get too hot to touch. Higher temperatures bring more bad-air days, with higher levels of ozone and other pollutants, as well as higher pollen counts. The very young, the elderly, people who work outdoors, athletes on playing fields, and people in buildings without air conditioning are at increased risk of heat exhaustion and heat stroke.

It's not quite so bad where trees capture some of the solar radiation, locking some of that energy into chemical bonds instead of re-emitting it as heat. Areas with more tree cover are cooler. Tree trunks feel cool compared with sidewalks or sliding boards. We can still enjoy a walk in the woods, most days, as long as we stay well hydrated. But projections from the National Oceanic and Atmospheric Administration cited in the Metropolitan Washington 2030 Climate and Energy Action Plan predict a

steady rise in the number of days when the temperature reaches 95 degrees or more. In 2019, there were 13 days over 95. By 2065, there could be 50 to 100 days per year when the temperature is 95 or higher if we don't succeed in our efforts to decrease greenhouse gas emissions. How will our grandchildren take their kids out to play?

When heavy rain falls on a cityscape, most of it quickly flows across the hard surfaces, picking up litter and polluted residue, rushing down drains to the river, the Bay, the sea. When heavy rain falls on a beech tree, the leaves slow the descent of the drops, so they

This beech tree in a Kettering backyard shades the house and the heat pump, lowering the cost of keeping cool. It also hosts periodical cicadas.

land more gently on the soil and seep in. The roots actively take up water, using some to build tree parts, storing some, and releasing some back into the air gradually through transpiration. The bigger the tree, the more water it takes up, the less rushes downhill.

Last summer we saw a change in the way precipitation fell, with more "rain bombs" dumping huge quantities of water in short time intervals. Our existing pipes, swales, and retention ponds weren't designed for this new normal. When we clear forests to build roads and buildings, we shouldn't pretend that planting a few rows of tiny saplings miles away actually compensates for the loss of the ecosystem services that were provided by the forest we destroy. More vegetation means less heat and less flooding. We need to enhance our full spectrum of green infrastructure resources – especially our woodlands with mature trees, our stream valleys, and our urban tree canopy--to decrease the impacts that our changing climate will have on human health and wellbeing.

Suzanne Simard says her book, Finding the Mother Tree, is not about how we can save the trees, but



Nature-built green infrastructure in Watkins Park includes layered solar panels and systems for carbon capture, energy storage, cooling and ventilation, water management, humidity control, pollution removal and oxygen production.

about how they might save us. She describes how complex communicating underground networks of diverse species of plants and fungi create a resilient system with remarkable capacity for self-healing. The oldest nodes in the network, "mother trees," exchange chemical signals with their nearby offspring and also with their diverse neighbors of other species, facilitating sharing of resources and adaptive reactions to stressors. Clear cutting forests destroys that repository of forest information. Saplings planted elsewhere lack access to the wisdom of their elders and the underground support network that makes a mature forest resilient in the face of multiple stressors that will increase as the climate changes. Trees can't save us if they are gone.

We need to change how we make land use decisions, putting greater value on the services provided by our green infrastructure and taking into account how proposed development will affect greenhouse gas emissions as well as how the expected increase in excess heat days and extreme precipitation events will affect the built environment and human health. We can't keep replacing the Green Infrastructure that sustains us with the asphalt and concrete that increase our vulnerability to heat and floods. We need to plan, build, and grow the infrastructure we need for the

conditions of the future.

To send your comments and suggestions to the Climate Action Commission, use this public input form. Find out more about what our county agencies are already doing to address the climate crisis at https://climatepartners.org/initiatives/local/prince-georges-county/ Presentations and updates from the Commission are available on the Climate Action Commission webpage

Homegrown National Park

By Maureen Fine

Many of us nature lovers have experienced the sheer delight of attending a Doug Tallamy talk, either in person or more recently on zoom. Many say it's a life changing experience. The award-winning author and Professor of Agriculture in the Department of Entomology and Wildlife Ecology at the University of Delaware has made one of his chief research goals trying to understand the interactions between plants and insects, and how these interactions affect biodiversity. After 104 research publications and 40 years of teaching insect related courses, Dr. Tallamy's call-to-action today is louder and stronger than ever:

"We are at a critical point of losing so many species from local ecosystems that their ability to produce the oxygen, clean water, flood control, pollination, pest control, carbon storage, etc, that is, the ecosystem services that sustain us, will become seriously compromised."

Dr. Tallamy and other renowned researchers warn that our National Parks are too small and separated from one another to preserve species to the level needed to maintain ecosystem services. We must extend national parks to our yards and communities. Homegrown National Park (https://homegrownnationalpark.org/) is the key to Dr. Tallamy's call to action to restore habitat where we live and work, farm and graze. By planting native plants and creating new ecological networks we can help restore biodiversity and ecosystem function. By visiting Homegrown National Park, homeowners have access to posts, articles, and videos that can empower them to turn their yards into conservation corridors that provide wildlife habitats.



Once you begin taking conservation into your own hands by planting native plants and removing invasives, you can GET ON THE MAP, a community-based visual that shows individual contributions to planting native on a map, searchable by state, county, and zip code. "Importantly, the map is a way for individuals to see their part in the greater whole – creating new ecological networks and restoring biodiversity."

As E.O. Wilson has said, "There can be no purpose more inspiring than to begin the age of restoration, reweaving the wondrous diversity of life that still surrounds us."

You can find a list of sources of local native plants at https://mdflora.org/nurseries.html. Here are some we trust:

- Chesapeake Natives (http://chesapeakenatives.org/) Prince George's County
- Nature By Design (http://www.nature-by-design.com/) Alexandria, VA
- Earth Sangha (https://www.earthsangha.org/) Annandale, VA
- Herring Run Nursery (https://bluewaterbaltimore.org/herring-run-nursery/) Baltimore, MD

Start Digging! Share your progress! Let's put more pieces of Homegrown National Park in Prince George's County on the map!





Sightings of Luna moths and Mourning Cloaks in Maureen's yard reward her for years of tending her patch of Homegrown National Park. In addition to planting host plants, Maureen also leaves places for overwintering caterpillars to pupate amidst the leaf litter.

Share your favorite piece of green infrastructure, your special experience with restoring habitats, or your unique perspective on current local environmental issue in the online Issues Forum or the next quarterly Newsletter. Contact janet.gingold@mdsierra.org

City Nature Challenge 2021 Results

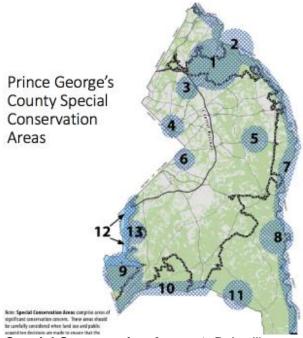
During the City Nature Challenge, April 30-May 3, 189 observers made 2,947 observations of living things in Prince George's County, including 831 different species. The top observer was Jenny Glenn, who uploaded 626 observations, including 261 different species. The most frequently observed species were American Sweetgum, Jack-in-the-pulpit, Virginia Creeper and Tulip Tree. Check out the CNC 2021 Prince George's County project on iNaturalist to enjoy the biodiversity of our beautiful county and find out where you might discover more cool stuff! We hope to see wider participation in the City Nature Challenge in 2022! Remember: You can use iNaturalist year-round to upload your observations to the global data base and continue to put our county's biodiversity on the map



American Sweetgum observed in Watkins Park on April 30.

Exploring our Special Conservation Areas

by Janet Gingold

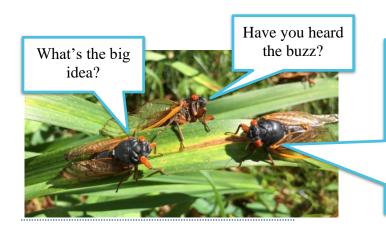


Special Conservation Areas: 1. Beltsville
Agricultural Research Area; 2. Patuxent
Research Refuge; 3. Greenbelt Park; 4.
Anacostia River; 5. Belt Woods; 6. Suitland Bog;
7. Patuxent River Corridor; 8. Jug Bay Complex;
9. Piscataway Park; 10. Mattawoman Creek
Stream Valley; 11. Cedarville State
Forest/Zekiah Swamp; 12. Potomac River
Shoreline: 13. Broad Creek

In coming months, our Prince George's Sierra Club outings program will embark on a series of explorations of the County's Green Infrastructure Network. We will start with a virtual overview of the Special Conservation Areas designated in the Green Infrastructure Plan this summer and we hope to be able to go for actual in-person hikes together in the fall. We'll start from the south and work our way northward. Watch the <u>calendar</u> for the itinerary and registration links.

Which favorite areas would you like to share with us? Helping with virtual outings requires no special training—just eagerness to share a favorite place and some pictures of what we might see there! You can become a certified Sierra Club outings leader if you are at least 18 years old, are (or become) a Sierra Club member, have basic first-aid certification, take the Sierra Club outings leader training course, and demonstrate necessary skills in provisional outings with a mentor. Get started with the first aid now so you'll be ready when the new improved OLT course comes on line. To help

with explorations, either virtual or in-person, contact janet.gingold@mdsierra.org.



The Prince George's Sierra Club Environmental Book Group wants to get more people talking about great ideas in books, films, media interviews, and more. If you don't have time to read the whole book, you can listen to the TED talk or a documentary. Now they call their gettogethers Big Idea Discussions. All are welcome!



SAVE THE DATE!

We've reserved a picnic pavilion for an in-person Fall Meeting at Cosca Regional Park on Saturday, September 25. We're working on the details and keeping our fingers crossed about the weather and the pandemic. This is a great opportunity to find out what county environmental activists have been working on and make new connections for collaborations in the future. On the agenda is presentation of this year's Maloney Award to a Prince George's County resident for exceptional service on environmental issues with county-wide impact. We also hope to arrange a walk in the woods and an animal demonstration with a park ranger. All are welcome!

If you would like to help organize this event, please contact <u>Janet.Gingold@mdsierra.org</u>.

ORGANICS COMPOSTING PROGRAMS EXPANDS!

Great news! Prince George's County has launched the Phase 1 expansion of the program for curbside pick-up of food scraps for composting at the Organics Composting Facility in Upper Marlboro. Three thousand households in targeted neighborhoods with Friday trash pick-up have been sent postcards inviting them to opt in to participate using an individual verification code. Participating households will receive a countertop food scraps container and an organics bin for curbside pickup as well as instructions for participation. Food scraps will be collected along with yard waste during the Monday pick-up.

Food scrap composting

- Decreases our carbon footprint by reducing greenhouse gas emissions, especially methane
- Decreases food waste in the landfill
- Creates a nutrient-rich soil amendment that improves soil health

Items that can be composted include food, food-soiled paper, uncoated paper plates and bags, paper towels and napkins, coffee grounds, tea bags and loose tea, paper ice cream containers, egg shells, dairy products, fruits and vegetables, meat and bones, seafood and shell fish, bread, pasta and grains, as well as yard trim.

Watch your mailbox and be sure to opt in as soon as you get your postcard! If your neighborhood is not included in this Phase 1 expansion, be sure to tell your county council representatives that you would like to see this program rapidly expanding county-wide. Also, let the Climate Action Commission know that you want county-wide composting opportunities included in the Climate Action Plan through your written comments or at the upcoming Community Meeting on the Climate Action Plan on June 24. For more information about the food scraps composting program, go to mypgc.us/compost.

Maryland Natural Places Legislative Update

by Lily Fountain

Rounding out our theme of green infrastructure, we had some legislative wins and some future opportunities created during this year's session in Annapolis. One of the most impactful bills that passed the General Assembly (enacted) and was not vetoed by the Governor was the Tree Solutions Now Act (HB 991- Gilchrist-support). This law will fund the planting and maintenance of 5 million sustainable native trees in the State by the end of 2031, including 500,000 trees in underserved areas. It establishes an urban tree planting program administered by the



Chesapeake Bay Trust and a Commission for the Innovation and Advancement of Carbon Markets and Sustainable Tree Plantings. The Tree Solutions Now Act also clarifies and limits the use of forest mitigation banking as credit for mitigating the loss of trees from development. This law will also provide funding for an important forest assessment that will inform a comprehensive forest conservation policy for the future.

Another positive note was the passage and non-vetoing of the Low-Impact Landscaping bill (HB 322-Hill-support), which prevents Home Owner Associations from imposing unreasonable limitations on rain gardens, pollinator gardens, and xeriscaping and requiring the property owner to regularly maintain landscaping. Also passed and allowed into law was HB 92 (Luedtke-support) that prohibits the use of state funds for invasive plants. Next year we will try to add that they must plant native plants.

A bill to help control deer by providing tax credits was enacted and allowed into law (HB 7-Luedtke-support). Luckily, the bill to allow Sunday deer hunting in Prince George's (HB 615-Prince George's Delegation-oppose) only passed the House not the Senate.

For pesticides, a bill to control the sale and storage of Neonicotinoids (HB 208/SB 378-support) was enacted and not vetoed. However, prohibition of PFAS chemicals (HB 22-Love-support) did not pass out of committee. The glyphosate prohibition bill (HB 472-Young-support) was withdrawn for future shaping to allow for limited use of the pesticide. A bill to address illegal use of carbofuran and to eliminate stockpiles of carbofuran in Maryland (HB 1025-Terrasa-support) was voted down in committee.

The Maryland Sierra Club also provided testimony on many other bills before the General Assembly, involving clean energy, climate change, public health, social and racial justice, voting rights, transportation, zero waste, and more. A complete <u>list of outcomes</u> for bills that Maryland Sierra Club testified on, as well as links to the testimony, are available at https://www.sierraclub.org/maryland/testimony.

If you are interested in joining the Natural Places Legislative Workgroup to work on these and similar issues for the future, please contact lily.fountain@mdsierra.org, chair of the Natural Places Committee.

Upcoming Events

Big Ideas Discussion of *Finding the Mother Tree* by Suzanne Simard and the documentary *Intelligent Trees* on June 27 at 4 PM. See Simard's TED talk at

https://www.ted.com/talks/suzanne_simard_how_trees_talk_to_each_other?language=en#t-1079968 Register for the discussion at

https://act.sierraclub.org/events/details?formcampaignid=7013q0000011Un3AAE

Big Ideas Discussion of *Trace* by Lauret Savoy on July 21 at 7:30 PM https://act.sierraclub.org/events/details?formcampaignid=7013q0000011VtoAAE

June Virtual Outing: Special Conservation Areas Part 1--South on June 30 at 7 PM https://act.sierraclub.org/events/details?formcampaignid=7013q0000011XNOAA2

July Virtual Outing: Special Conservation Areas Part 2—Central on July 27 at 7PM https://act.sierraclub.org/events/details?formcampaignid=7013q0000011XO2AAM

Prince George's Sierra Club Fall Get-Together at Cosca Regional Park – September 25 1-4 PM (tentative).

Department of Environment Virtual Community Meeting on the Climate Action Plan, June 24, 6:30-8:30 PM. Register at

 $\frac{https://umd.zoom.us/meeting/register/tJwvcOusrjMpGtBx76TL40tdlaBWoOxUD0qT}{facebook} \ page \ for \ updates.$

Zero Waste Team Meeting June 12, 10AM. Register at

https://act.sierraclub.org/events/details?formcampaignid=7013q0000011NHWAA2

Prince George's Sierra Club Executive Committee meets on the first Sunday of each month, 4-6 PM. Register for the July meeting at

https://act.sierraclub.org/events/details?formcampaignid=7013q000001kycEAAQ

Prince George's Sierra Club Climate Action Team meets on the third Monday of each month and as needed. Register for the June 21 meeting at

https://act.sierraclub.org/events/details?formcampaignid=7013q0000011XO7AAM



Find more events on the calendar at

https://www.sierraclub.org/maryland/calendar

Find out more about activities of the Prince George's Sierra Club at https://www.sierraclub.org/maryland/prince-georges

Periodical Cicadas Brood X 2021 Pictures by Janet Gingold

