



Planting American Beautyberry for Wildlife

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This article introduces readers to the benefits of promoting American beautyberry (*Callicarpa americana*) and other native plants in the home landscape. The goal of the article, and the Master Naturalist Publication Series, is to encourage a new way of thinking about the landscape and environment in cities, where over 80% of Georgia's population lives. By rethinking about the urban landscape as an ecosystem – the network of biotic and abiotic components that influence life – residents can create stronger, more resilient communities.

THE THREAT OF URBANIZATION ON ECOSYSTEMS

Urbanization is the movement of human populations to cities, often resulting in cities sprawling into rural areas. It is one of the greatest threats to natural ecosystems – more so than industrialized agriculture (Brown, 2009). About one-third of North American plant species are at risk of population decline due to habitat loss and fragmentation as cities expand into rural landscapes. Fragmentation occurs when large plots of green space are segmented by development, causing wildlife to pass through the built environment (e.g., roads, buildings, and above- and below-ground utilities) in order to access natural habitat and forage.

Urbanization has led to a dramatic habitat loss that is impacting numerous species across Georgia. Several wildlife species have been affected by urbanization, particularly animals that do not adapt well to changes in habitat. It not only limits natural habitat space but also decreases the amount and diversity of natural forage available by promoting lawns, using non-native plants, and over-managing landscapes that limit biodiversity.

This decrease in biodiversity, along with the usage of fossil fuel-based pesticides to kill weeds, has greatly impacted insects populations. Pollinators in particular, such as butterflies, bees, and wasps, thrive off having a wide variety of plants and nectar to consume. Pollinators and other insects serve a vital role in ecosystems by pollinating flowers and serving as food source for birds, reptiles, amphibians, and small mammals. In the urban ecosystem, all organisms and the physical environment in which they interact are connected and, as such, urbanization has threatened the components that make up the ecosystem. Rethinking the urban landscape as a patchwork of connected greenspaces at different scales can help mitigate some of the negative effects of urban growth and development. Creating native plant gardens is one way to improve the health of the urban ecosystem in our own backyards.

GARDENS AS CONSERVATION TOOLS

Conservation can happen anywhere! Scale is important to consider when discussing ecosystems. Even a small space, like a home garden, is a small ecosystem that is connected to the larger ecosystems of the yard, the neighborhood, the city, and the watershed. While different sized spaces can be ecosystems, connecting those spaces via green (terrestrial) or blue (aquatic) corridors is key to stitching together the spaces into an ecosystem fabric (Figure 1).

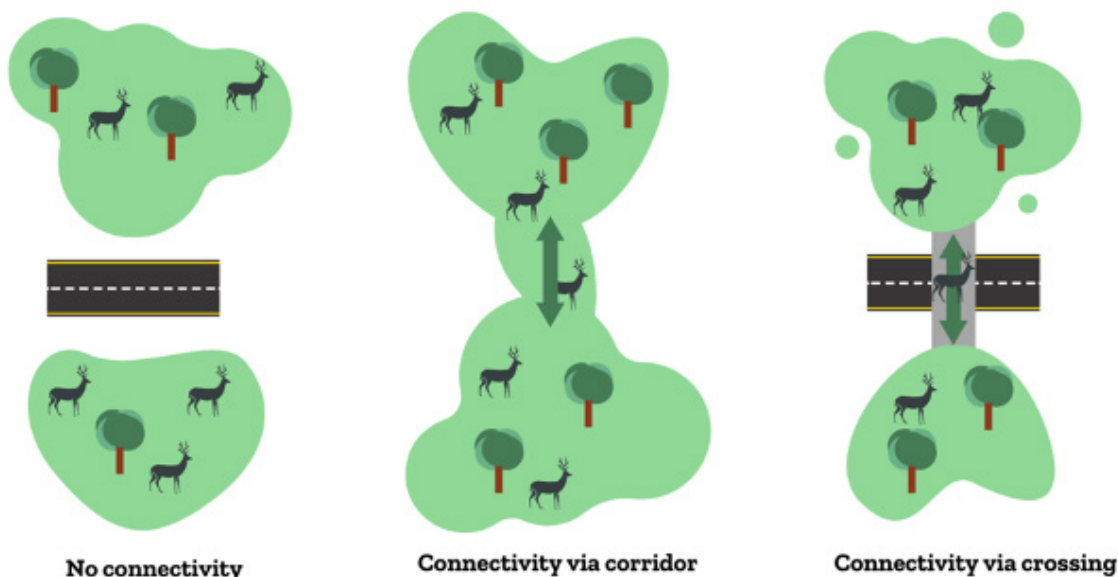


Figure 1: *Scales of ecosystems* (Source: Caldwell, 2022).

Wildlife corridors are green spaces that allow animals to have a passage through urban areas and where humans can increase their contact with nature. Wildlife patches and corridors allow for more peaceful cohabitation with wildlife. A yard can act as a corridor if it is a linear space that connects two larger green spaces, such as suburban woodlots. A small garden can be utilized as a wildlife patch for pollinators or other animals, including hummingbirds, reptiles, and amphibians. Such spaces encourage movement and gathering, and allow for more exchange between animal species which can lead to increased gene flow, ease competition for habitat and forage, reduce inbreeding, and increase population size (Bradley, 2020).

When thinking about these patches and corridors of ecosystem space, it is also important to consider revitalization of the entire system of species. Often, conservation has tended to focus on a single species at a time resulting in benefits to some species and losses for others (Brown, 2009). Even one garden can promote revitalization of the ecosystem by building biodiversity, combating invasive species, and encouraging healthy ecosystems. Gardens can be utilized as green spaces, green infrastructure, forage for wildlife, and wildlife corridors to combat habitat loss. One easy way to do this is by planting a native species. American beautyberry is a native shrub that encapsulates so many benefits to the ecosystem, especially wildlife.

AMERICAN BEAUTYBERRY SPECIFICATIONS

American beautyberry is a medium-sized, woody understory shrub with broad bright green leaves that is known for its showy fuchsia-colored fruit clusters (Figure 2). In spring, pink flowers bloom to signal the purple fruits (berry-like drupes) it will soon bear. The drupes persist until late autumn, even after its leaves turn yellow and fall off. American beautyberry is native to the southeastern United States, and often available for purchase in nurseries. However, it is also easy to propagate by seed or cutting. It thrives in full sun to partial shade, making it a perfect accessory next to any tall tree in the home landscape. They also thrive in the understory of a wooded area.

American beautyberry typically does not exceed six feet tall, but can also be pruned to various sizes and shapes. It does best in loam soils during establishment, but can adjust to almost all soils after established. It is tolerant to heat and cold in Georgia, so no need to dig it up for overwintering during the winter. This border shrub can serve as a living privacy fence during the months its bright green leaves are intact. If the yard abuts a wooded area, American beautyberry will thrive as an edge shrub, so planting along a wooded edge that connects to yards can be ideal as well (Lady Bird Johnson Wildflower Center, 2018).

AMERICAN BEAUTYBERRY AS HABITAT

American beautyberry planted in the yard can be used as a food source for animals to forage as they pass through an ecological corridor to a patch space. Human contact with wildlife has numerous benefits to humans, including increased physiological and mental health (Fehlmann et al., 2021). American beautyberry attracts songbirds, quail, deer, pollinator insects, and others. It may even allow the deer to forage as a substitute instead of the homeowner's prized ornamentals, such as irises or foxgloves (Hillock et al., 2011).

About 25% of North America's birds have been placed on the National Audubon Watch List, which lists species whose populations are at risk for becoming threatened. The main cause of the decrease in these populations is due to habitat loss. American beautyberry provides birds food through berries and seeds, habitat for nesting, and shelter from predators. Birds will also eat the insects that are attracted to the shrub. Northern bobwhite quail build nests on the ground and love to feast on the drupes and seeds of American beautyberry (Hugo, 1993). Most migratory birds eat insects and fruit to support their survival along their migratory route (Brown, 2009). Varying vegetation in the yard can increase the amount of different bird species that visit (Dixon, 2018). They can stop in the yard along their route to eat the purple drupes off the American beautyberry.



Figure 2: *American beautyberry* (*Callicarpa americana*) (Photo: Leander, 2008).

Residents can also reduce the amount of money they spend on birdseed by supplementing birds' diets with the seeds and berries of American beautyberry, as well as the insects the plant attracts. Having it as an additional source of food will spread out the bird visitors, decreasing rates of avian flu transmission by decreasing crowding (Dixon, 2018). Birdseed can often bring non-native plants to the area, as the birds pass along the seeds with their droppings. The birds can help naturally spread the beautyberry among its native range.

Bees and butterflies are attracted to the pink flower blooms in springtime and can potentially, in turn, help pollinate the rest of the garden (Figure 3). Beautyberry is disease and pest resistant (Hugo, 1993), so you can spend less money on herbicides, pesticides, or fungicides that harm insect and bird populations.

CONCLUSION

In conclusion, planting American beautyberry can be a wonderful way to help conserve wildlife in your area by increasing biodiversity, native plants, attracting pollinators, and allowing for habitat space and forage. For more information, contact your local county Extension agent.



Figure 3: *American beautyberry blooms* (Photo: Smith, 2018).

REFERENCES

- Bradley, T. D. (2020). Consideration of Possible Futures for Peri-Urban Sites Based on Restabilizing Ecosystem Processes : Rewilding Nature and People (Order No. 28642019). Available from ProQuest Dissertations & Theses Global. (2564078402). <https://www.proquest.com/dissertations-theses/consideration-possible-futures-peri-urban-sites/docview/2564078402/se-2>
- Brown, C. (2009). Conservation gardening and sustainable landscaping (Order No. 1465341). Available from ProQuest Dissertations & Theses Global. (305148291). <https://www.proquest.com/dissertations-theses/conservation-gardening-sustainable-landscaping/docview/305148291/se-2>
- Caldwell, R. (2022). Corridors vs. Crossings: What's the Difference? Center for Large Landscape Conservation. Retrieved April 28, 2023, from <https://largelandscapes.org/news/corridorvscrossing/>.
- Lady Bird Johnson Wildflower Center - The University of Texas at Austin. (2018). *Callicarpa americana*. Retrieved May 1, 2023, from https://www.wildflower.org/plants/result.php?id_plant=caam2
- Dixon, L. A. M. (2018). Managing Domestic Gardens Collectively to Promote Biodiversity: Opportunities and Constraints (Order No. 13819595). Available from ProQuest Dissertations & Theses Global. (2186380471). <https://www.proquest.com/dissertations-theses/managing-domestic-gardens-collectively-promote/docview/2186380471/se-2>
- Fehlmann, G., O'riain, M. J., Fürtbauer, I., & King, A. J. (2021). Behavioral Causes, Ecological Consequences, and Management Challenges Associated with Wildlife Foraging in Human-Modified Landscapes. *BioScience*, 71(1), 40–54. <https://doi.org/10.1093/biosci/biaa129>
- Hillock, D., Toscano, K., & Elmore, D. (2011). Ornamental and garden plants: Controlling deer damage. Oklahoma Cooperative Extension Service.
- Hugo, N. R. (1993). Beautyberry. *Horticulture*, 71(8), 88.
- Leander, B. (2008). *BL_IMG000062.Jpg*. photograph, Austin, TX.
- Painter, T. (2018). Native Berries for Birds. *Horticulture*, 115(5), 30–37.
- Smith, R. W. (2018). *RWS_IMG3028.Jpg*. photograph, Lowndes, GA.

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