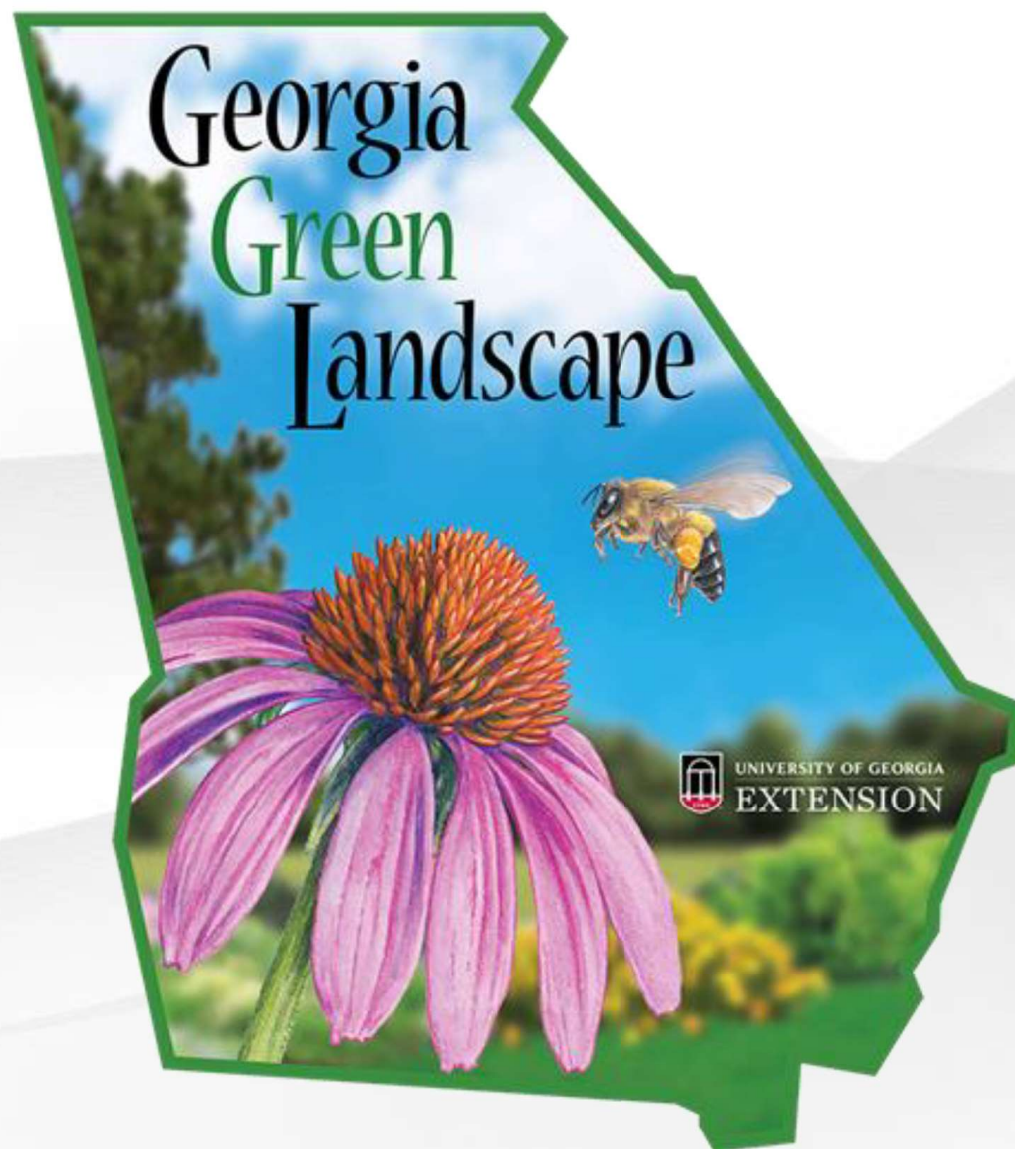



Encouraging Biodiversity at Home

Jessica Warren

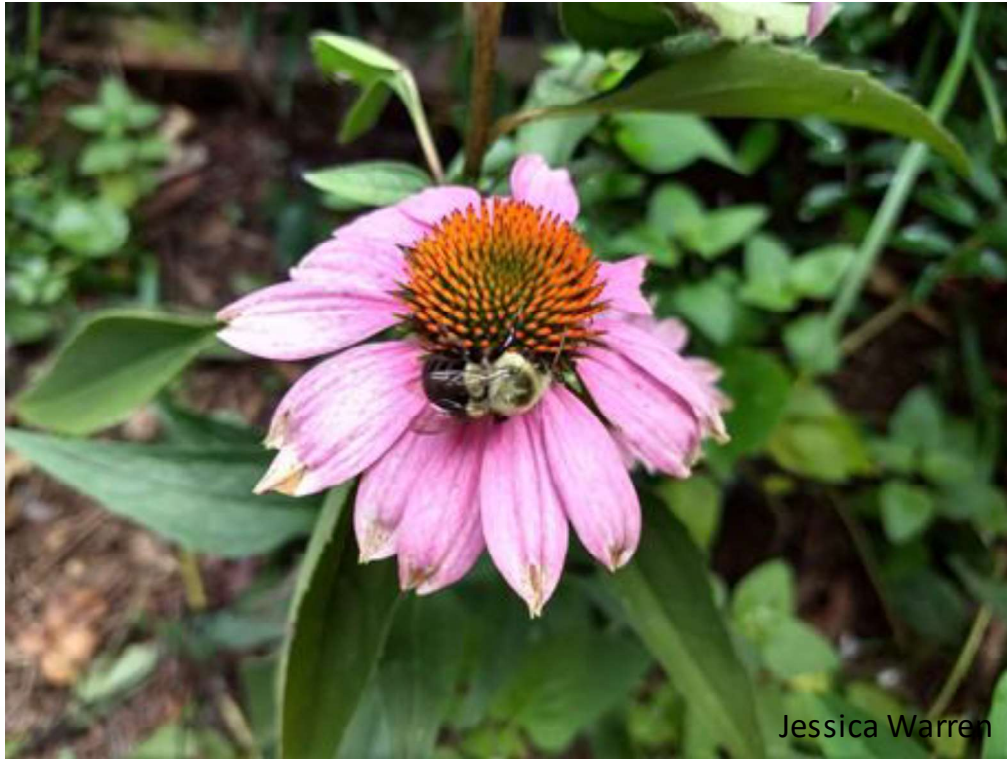
Camden County
Extension Coordinator
and Agriculture and
Natural Resources Agent





The following presentation is part of the University of Georgia Extension service Georgia Green Landscapes program funded by the Center for Urban Agriculture. These guidance series will help Georgia residents create certified sustainable Georgia Landscapes, protecting our natural resources for future generations.

What is Biodiversity?



- Literally diversity of life
- Biodiversity, also called biological diversity, the variety of life found in a place on Earth or, often, the total variety of life on Earth. A common measure of this variety, called species richness, is the count of species in an area...Furthermore, biodiversity encompasses the genetic variety within each species and the variety of ecosystems that species create. -Britannica

Why Do I Want Biodiversity?



- “Biodiversity is the totality of all inherited variation in the life forms of Earth, of which we are one species. We study and save it to our great benefit. We ignore and degrade it to our great peril.” —E.O. Wilson
- Ecosystems are complex and all life is intertwined creating a balance.
- A healthy society requires a healthy planet
- A biodiverse landscape is a healthy landscape

Threats to Biodiversity

- HIPPO (in order of impact):
 - Habitat destruction
 - Invasive species
 - Pollution
 - Human over-Population
 - Overharvesting through hunting and fishing



Deforestation in Peru, Dr Morley Read/Shutterstock

How Do I Foster Biodiversity?



Jessica Warren

- No monocultures
- Plant species diversity
- Remove invasive species
- Accept imperfections
- See the beauty in what naturally occurs
- Provide/preserve habitat:
 - Food
 - Water
 - Shelter and structure
- Reduce/eliminate your contributions to pollution including a pesticide free landscape

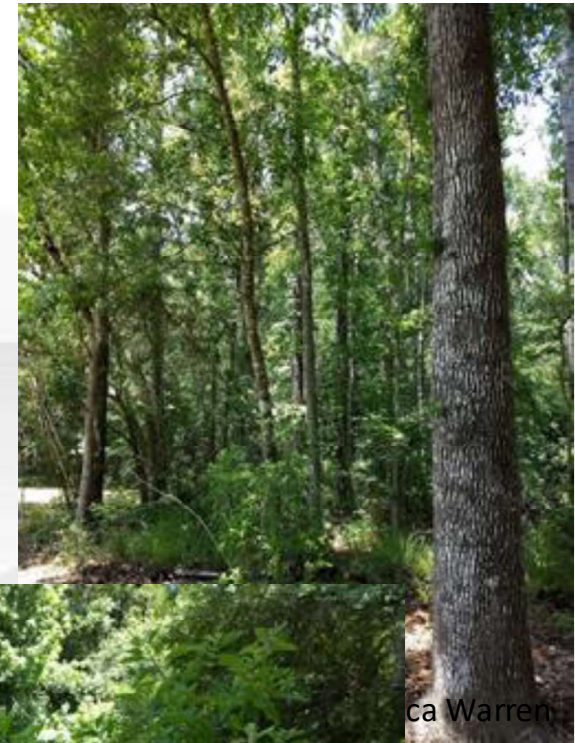
No Monocultures

- Nature doesn't produce monocultures
- Monocultures do not support life – devoid of habitat
- Monocultures put people constantly at war with nature in an effort to suppress natural processes



chippersinc.com

Plant Species Diversity



Remove Invasive Species



- Destroy habitat by displacing native species
- Often provide no food resources to native species
- Can lead to ecosystem collapse
- Many invasive species are still sold in the ornamental trade in Georgia as Georgia is one of four US states without a noxious weed law



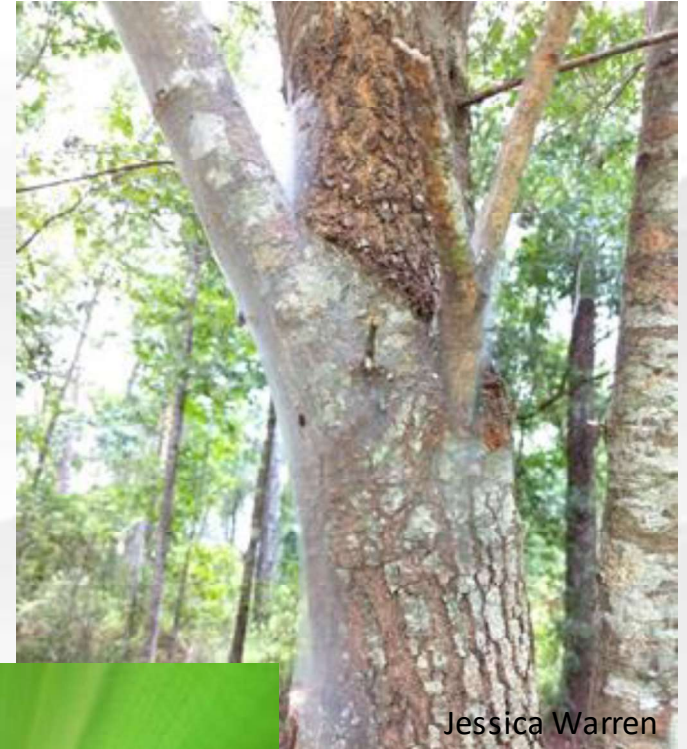
Accept Imperfections



Jessica Warren

- Life isn't perfect and your landscape shouldn't be either!
- Let go of unrealistic expectations
- Think of the consequences that striving for landscape perfection creates
 - Cost
 - Pollution
 - Time
 - Stress
 - Ecological damage
 - Loss of ecosystem balance
 - Species loss

See the Beauty in What Naturally Occurs



Food



- Insects are the base of the food web
- We're experiencing record global insect loss – an “insect apocalypse”
- This is resulting in bird and other animal loss and if left unchecked will lead to ecosystem collapse
- Also affecting our food production and pollination
- What do insects need?
 - Shelter
 - water
 - Food (plants, other insects, decomposing natural materials, pesticide free habitats)

Water



- Bird baths
- Puddles
- Old plate or shallow dish
- Add rocks or marbles to enable insect use
- Plants with cupped leaves
- Rocks or pavers with depressions



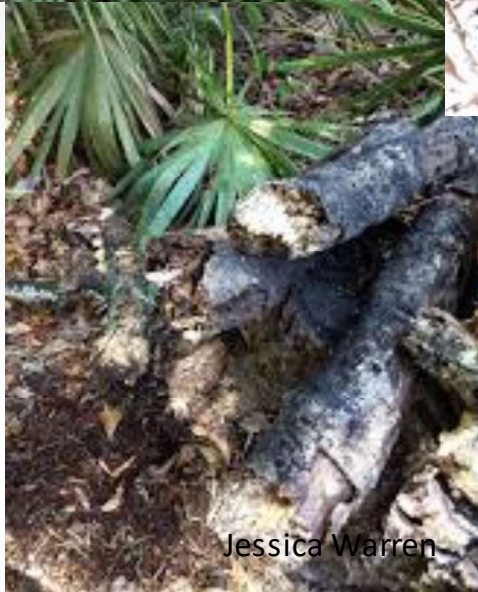
Shelter and Structure



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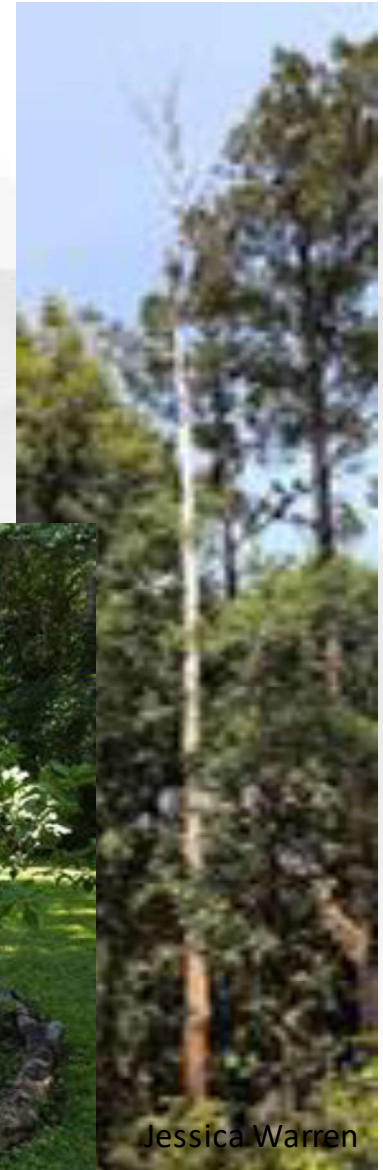
Jessica Warren



Jessica Warren



Jessica Warren



Jessica Warren

Reduce/Eliminate Your Contributions to Pollution

- Pet waste
- Fertilizer runoff
- Pesticide use/runoff
- Cleaning chemicals
- Oil/fuel spills/leaks/exhaust
- Trash
- One time use products
- Consumption



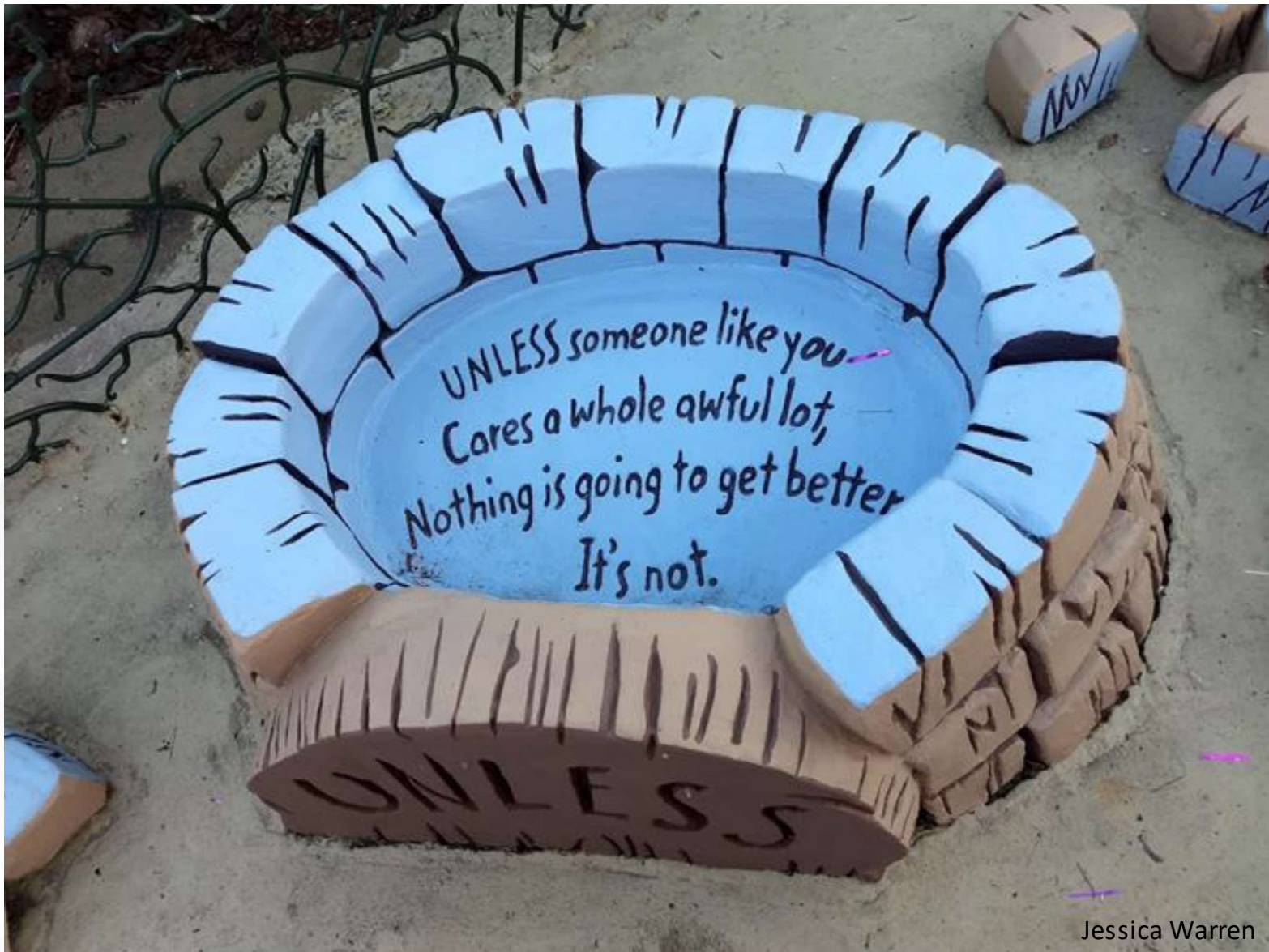
Further Reading and Resources

Articles and Online Resources

- <https://www.theguardian.com/news/2018/mar/12/what-is-biodiversity-and-why-does-it-matter-to-us>
- <https://www.nytimes.com/2018/11/27/magazine/insect-apocalypse.html>
- <https://eowilsonfoundation.org/>
- <https://www.nationalgeographic.org/encyclopedia/biodiversity/>
- <https://www.worldwildlife.org/pages/what-is-biodiversity>

Books and Authors

- Anything by E.O. Wilson
- *Song for the Blue Ocean* Carl Safina
- *The Edge of the Sea* Rachel Carson
- *A Sand County Almanac* Aldo Leopold
- *Ecology of a Cracker Childhood* Janisse Ray
- *Prodigal Summer* Barbara Kingsolver (fiction but contains a lot of ecology and science)



Jessica Warren

Certification Checklist Items:

- Incorporate diverse plant species in your landscape. Reduce monoculture coverage, such as expansive turf lawns, and remove invasive species.
- Provide and preserve habitat with food, water, and shelter for a variety of wildlife, including insects.
- Reduce or eliminate your contributions to pollution, including a pesticide free landscape. Prevent pollution and improper disposal of fertilizer, pesticides, cleaning chemicals, pet waste, and oil/fuel. Pick up trash and reduce consumption and reliance on one-time use products.
- Keep a portion of your landscape naturally diverse and accept landscape "imperfections". This means less labor and gives you more time to relax and enjoy your other efforts!

Questions?

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georgiagreen/](https://site.extension.uga.edu/georgiagreen/)

