



# Southeastern Plant Conservation Alliance

Southeastern Center for Conservation



ATLANTA BOTANICAL GARDEN

Dr. Emily Coffey, V.P. of  
Conservation & Research



Sarah Norris, Conservation  
Partnerships Assistant



Carrie Radcliffe, Conservation  
Partnerships Manager



To promote innovative  
strategies and  
partnerships to  
conserve imperiled  
plants and natural  
communities



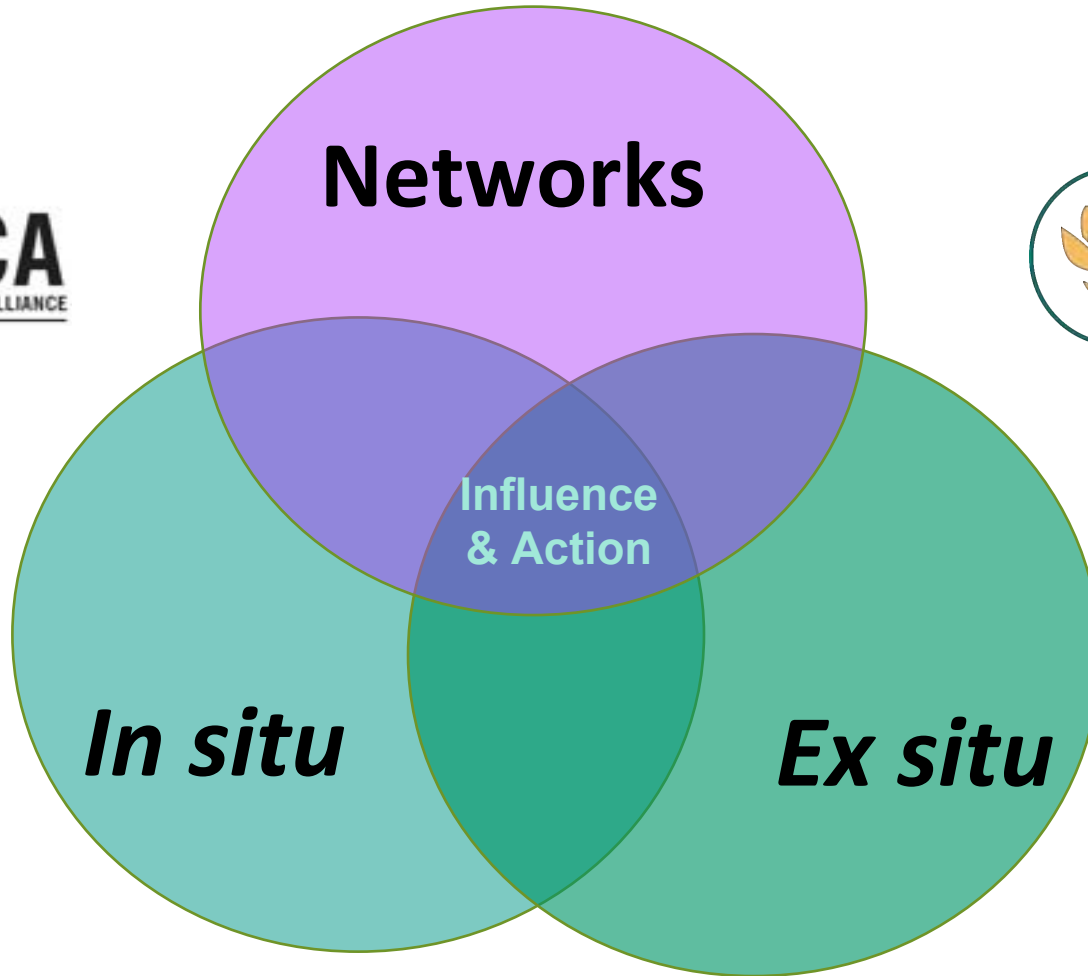
Southeastern Center  
for Conservation

# NETWORKS PARTNERSHIPS





Global  
Conservation  
Consortium  
**Magnolia**







# ATLANTA BOTANICAL GARDEN

## Southeastern Center for Conservation 2022



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Andrew Gaudet  
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JON STUCKERT  
Plant  
Biologist



SARAH NORRIS  
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TIM MILLER  
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Lab Technician



Andrew Gaudet  
Seed Bank



JON STUCKERT  
Plant  
Biologist



SARAH NORRIS  
Conservation  
Partnerships



SARAH NORRIS  
Conservation  
Partnerships



KATHERINE JOHNSON  
Cons. Horticulture  
Asst  
Part-time



MSF interns and RAMP students

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# Southeastern PCA Background



A map of the Southeastern United States, highlighting the region covered by the Southeastern PCA. The map shows state boundaries and abbreviations for TX, OK, AR, LA, MS, AL, GA, SC, NC, TN, KY, WV, VA, and FL. The text "Southeastern PCA Background" is overlaid in large orange font. The map is framed by a light gray border with teal horizontal lines at the top and bottom, and brown horizontal lines on the left and right sides.

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# Southeastern Plant Conservation Alliance



The SE PCA is a network bridging gaps between local and national plant conservation efforts and collaborating to prevent and restore the loss of plant diversity in the Southeast.

- **Highlight** plant conservation's essential role in ecosystem stability & climate resilience.
- **Collaborate** to prioritize and coordinate conservation activities.
- **Increase diversity** of representation.
- **Leverage funding** through coordinated science and conservation actions.
- Create and implement a **regional strategy** for plant conservation that benefits everyone.



[www.se-pca.org](http://www.se-pca.org)



# Conference Outcomes (SePPCon)

## 2016

- ▶ Addressed status & needs of at-risk plant species
- ▶ Presented best practices for *in situ* & *ex situ* conservation
- ▶ Promoted local plant conservation alliances as a model for success for the Southeastern U.S.
- ▶ Created the opportunity to withdraw 10 species from the Center for Biological Diversity mega-petition
- ▶ Attended by 170+



## 2020

- ▶ Expanded capacity building and training through facilitated workshops & breakouts
- ▶ Included a public call for presentations to increase the diversity of speakers/ topics
- ▶ Facilitated strategic planning for regional needs & opportunities
- ▶ Presented science and management tools for recovery
- ▶ Formalized a regional plant conservation alliance for the Southeastern U.S.
- ▶ Attended by 200+





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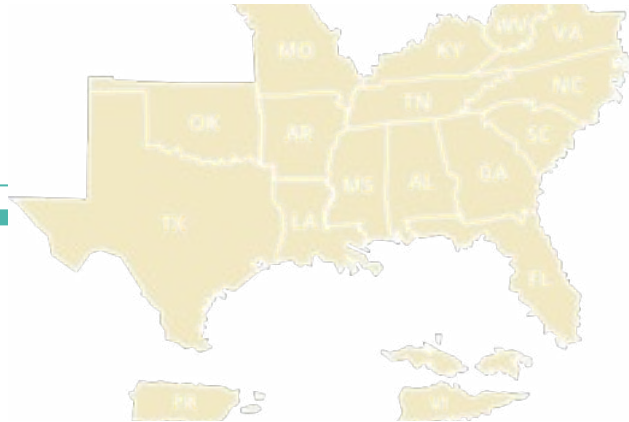
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# Improving Recovery Outcomes for ESA Listed Species through the SE PCA

SE PCA | US Fish & Wildlife Service

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# ***Improving recovery outcomes through the SE PCA***

- **Funded through the U.S. Fish & Wildlife Service Southeast Regional Office**
- **Primary objectives:**
  - Federally listed species prioritization
    - Promoting recovery
    - Preventing extirpation
    - Education & outreach
- **Secondary objectives:**
  - Encourage and support Plant Conservation Alliances
  - Promote partnerships on public and private lands
  - Facilitate working groups and workshops

# Improving recovery outcomes through the SE PCA

## Ranked list for pilot projects:

1. ***Varronia rupicola*** - propagation and reintroduction support in Vieques NWR
2. ***Platanthera integrilabia*** - site assessments, *ex situ* collections, habitat management
3. ***Ribes echinellum*** - demography studies to inform other needs
4. ***Schwalbea americana*** - predictive modeling and surveys
5. ***Trillium reliquum*** - surveys to inform FWS SSA

## 5 Pilot projects selected (out of 13 species)

- Implementing over 2 years
- Awarded funds for years 3 - 4 of 5

## Documentaries (2022):

- Coastal flatwoods (*Euphorbia telephioides*)
- Pine Rocklands (*Linum arenicola*)
- Puerto Rico manjack (*Varronia rupicola*)



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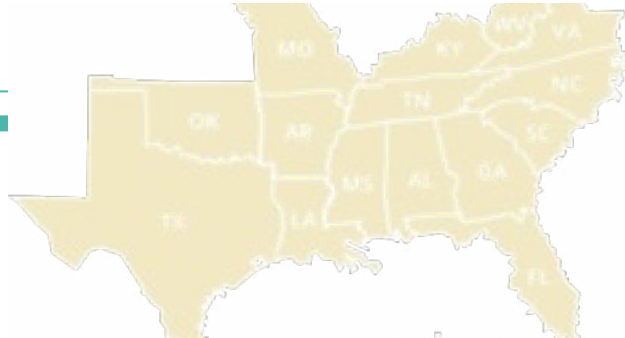
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# *Ex situ* Gap Analysis of High Priority Plant Taxa of Conservation Concern

SE PCA | NatureServe | BGCI US  
Atlanta Botanical Garden | SEAFWA

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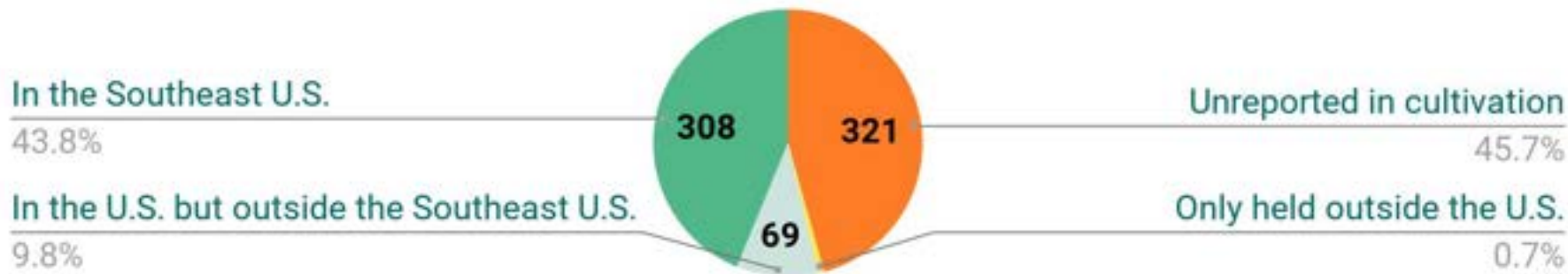




# Great *Ex situ* Foundation

## 54% of high priority taxa are held in *ex situ* collections

- ❖ 80% held in the Southeast U.S.
- ❖ 75% are reported by seed banks



# Glass Half Full or Half Empty?

4% represented by 20+ wild-origin accessions

88% represented by <5 wild-origin accessions

68% represented by zero wild accessions



# Ex situ Gap Analysis of SE Priority Plants

## Use these data to...

- ❖ Guide strategic collecting activities to increase well-documented and genetically-diverse *ex situ* collections
- ❖ Identify unique wild accessions that need to be backed up

## And as a launching pad for...

- ❖ Gathering additional *ex situ* collections data, focused on wild accessions
- ❖ Tracking *ex situ* progress through time
- ❖ Developing a formal regional species prioritization list

# Advocacy & Engagement

# Combating Plant Invisibility

[illegible]

## TALK TO AN EXPERT HOW YOU CAN GET INVOLVED: COORDINATING PCA DS

### CITATIONS

1. American Chemical Association International (2016). *Joint American Chemical Society Strategy for Plastic Pollution*. (2016-2026). <http://chemsustainability.org/commit/uploads/2016/08/ACSOW.pdf>
2. Centre for Plastic Connections (2017). *Real World Connections: Preparing for Circular Economy*. Downloaded in the WGL. [http://chemsustainability.org/commit/uploads/2017/08/04\\_Real-World-Connections\\_12-12-2017.pdf](http://chemsustainability.org/commit/uploads/2017/08/04_Real-World-Connections_12-12-2017.pdf)
3. Plastic Connections Alliance (2016). *National Level Strategy for Reducing Plastics and Reuse/Recycle* (2016-2026). [http://chemsustainability.org/commit/uploads/2016/08/04\\_National-Strategy-for-Reducing-Plastics-and-Reuse/Recycle-2016-2026.pdf](http://chemsustainability.org/commit/uploads/2016/08/04_National-Strategy-for-Reducing-Plastics-and-Reuse/Recycle-2016-2026.pdf)
4. Royal Society (2016). *How (2016). State of the world's plastic and waste*. (2016). <http://doi.org/10.1016/j.sci.2016.11.011>
5. Teitz, R.A., Jostes, L.L., Adams, L.L. (2000). *The Science Connection and its Role in the Reducability Initiative*. Oxford University Press, New York. 398 pages. ISBN 0 19 512311 6.
6. Garbaccio, J., Smith, W. (2016). *Acidic Degradation of the Greenhouse Effect: A Regional Synthesis to Support Reducability Implementation in a Changing Climate*. <http://doi.org/10.1016/j.sci.2016.11.011>
7. Krupp, W.M., Peters, A., Wenz, R., Hertz, J.P., Hocking, A., Jones, A.G., Redburn, R.A., Miller, J., McElroy, P., McElroy, R.L., Moore, R., Whitford, R.L., Strong, R., Gernert, A., Hertz, R., and Rosenbaum, S. (2016). *Worldwide plastic emissions in the context of United Nations and Global Climate Change Strategy*. <http://doi.org/10.1016/j.sci.2016.11.011>
8. Rogers, D.L., S. (2016). *Pathways of opportunities for plastic innovation under the European Union's Strategic Circular Economy*. <http://doi.org/10.1016/j.sci.2016.11.011>
9. Intergovernmental Science Policy Platform on Reducability and Reuse/Recycle (2016). *The Global Connections Report on Reducability and Reuse/Recycle: Summary for Policymakers*. <http://doi.org/10.1016/j.sci.2016.11.011>





# ADVOCACY

How organizations can be  
advocates for plant conservation



## The Goal

Sharing and coordinating an organization's mission in order to promote public policies, laws, and regulations that support plant conservation



## Defining Advocacy<sup>1</sup>

Advocacy refers to public support for or recommendation of a particular course of policy. It can mean a wide range of activities from voter education to direct lobbying to grassroots organizing.



## Proposed Legislation

### Recovering America's Wildlife Act

H.R. 2075, S. 2102

The Recovering America's Wildlife Act will provide states, territories, and tribes with \$1.38 billion annually to catalyze proactive, on-the-ground, collaborative efforts to restore natural habitat and implement conservation strategies.



## Advocating as a Non-Profit<sup>1</sup>

Under their 501(c)(3) tax status, non-profit organizations can freely participate in lobbying activities with limitations on direct lobbying activities. A 501(c)(3) is forbidden from engaging in political activities on behalf of or in opposition to a candidate for political office but may still participate in a variety of nonpartisan activities. 501(c)(3) organizations should consult their tax lawyer to ensure any allowed pay activities fit within legal guidelines.



## Native Plant Species Pilot Program Act

H.R. 2944, S. 569

The Native Plant Species Pilot Program Act will create a pilot program to utilize native plant materials in projects within National Park Service units to protect native plant biodiversity.



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# Southeastern Plants

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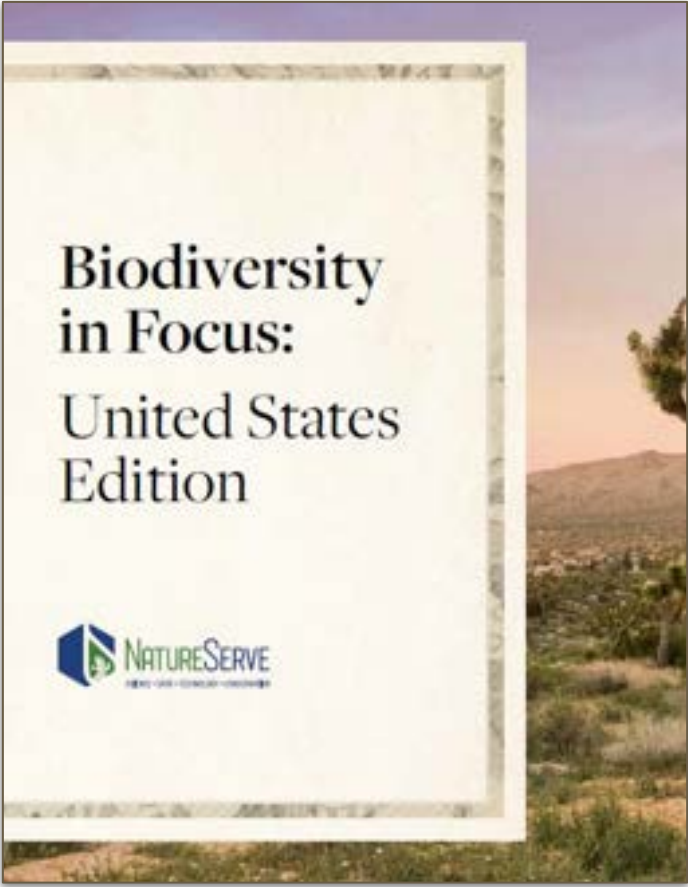
## Regional Species of Greatest Conservation Need

SE PCA | NatureServe | Terwilliger Consulting Inc.

— Southeast Flora | ABG | SEAFWA | USFWS —



# Plant Conservation in the Southeastern U.S. and Beyond



## Biodiversity in Focus: United States Edition



- *State of the World's Plants and Fungi* (2020) indicated that **two-fifths (40%) of all plants are at risk of extinction.**
- *Biodiversity in Focus: United States Edition* (2023) reveals that **34% of plants and 40% of animals are at risk of extinction, and 41% of ecosystems are at risk of range-wide collapse.**
- Of the 65 plants that have vanished in North America since European colonization, **25 (40%) have been from the Southeast** (*Vascular plant extinction in the Continental United States and Canada*, Conservation Biology, 2020).



60+

NETWORK PROGRAMS  
IN THE UNITED STATES  
AND CANADA

OVER  
1,000

CONSERVATION PROFESSIONALS

The network collects,  
analyzes, and distributes  
detailed scientific data  
about plants, animals,  
and ecosystems in their  
jurisdictions

THE POWER OF  
THE NETWORK

[www.NatureServe.org](http://www.NatureServe.org)

100,000

Species Assessed



7,000

Ecosystem Types Classified



Nearly 1,000,000 occurrence records



NATURESERVE  
NETWORK

# State Wildlife Action Plans (SWAPs)

- Mandated in 2005 by Federal Government to receive funding for State and Tribal Wildlife Grants
- SWAPs include Species of Greatest Conservation Need (SGCN) lists.
- SGCN species are usually animals, but some states do include plants.
- SGNC species can be folded up to the Regional level to create Regional Species of Greatest Conservation Need (RSGCN) Lists.
- SWAP Plans are revised every 10 years.



# Plants in State Wildlife Action Plans (SWAPs)



Moffett and Ambrose (2020)

# Benefits of developing a RSGCN list

- Leverage the SE PCA & Natural Heritage networks.
- Serve as a resource for State Wildlife Action Plans.
- Communicate shared priorities between partners.
- Prioritize status assessments and ranking updates.
- Fulfill a goal of the SEAFWA Wildlife Diversity Committee and complement the existing Southeastern Animal RSGCN list.
- Prepare for the passage of Recovering America's Wildlife Act (RAWA) and more support for plants through State agencies & Tribal nations.

**SE PCA**  
SE PLANT CONSERVATION ALLIANCE

The Southeastern Plant Conservation Alliance (SE PCA) is a public & private partnership of professionals bridging gaps between local and national plant conservation efforts and collaborating to restore plant diversity in the southeastern United States.

PLEASE VISIT US ONLINE TO LEARN MORE! [SE-PCA.ORG](http://SE-PCA.ORG)

### OUR GOALS

- Highlight plant conservation's essential role in ecosystem stability and climate resilience
- Collaborate to promote and coordinate conservation activities
- Leverage funding through coordinated science and conservation actions
- Create and implement a regional strategy for plant conservation

### OUR ACTION ITEMS

SUPPORTING UNITED CONSERVATION EFFORTS IN THE SOUTHEAST AND BEYOND

- Develop a list of Species of Greatest Conservation Need for Southeastern plants
- Use the list to identify and conduct restoration status assessments for priority species
- Secure 60-75% of Southeastern rare plants in seed banks and collected (as well being collected)
- Implement recovery and conservation projects that restore 70-75% of ex situ collections into the wild (or into the next 6-8 years)
- Promote the utilization of the Center for Plant Conservation's Best Practices
- Support the National Seed Strategy for Endangered and Threatened
- Increase public awareness of the critical and essential roles of plants in ecosystem biodiversity
- Focus conservation funding on efficient and cost-effective recovery efforts

### THE NEED FOR PLANT CONSERVATION

Globally, 40% of plant species face extinction.<sup>1</sup> While the United States supports a larger variety of ecosystems than any other nation, the plants and habitats of its richly diverse Southeast are particularly vulnerable to continued anthropogenic influences.<sup>2</sup>

- Of the 45 plant species that have vanished in North America since European settlement, nearly 50% (23) are from the Southeast. Of an additional 7 plant species extant in the wild (only known from ex situ collections), four are from the Southeast.<sup>3</sup>
- The majority of federally threatened and endangered species are plants – yet they receive less than 1% of federal & state recovery funding.<sup>4</sup> More than one-third of plant species in the U.S. are at risk of extinction, but only 11% are protected by the Endangered Species Act.<sup>5</sup>

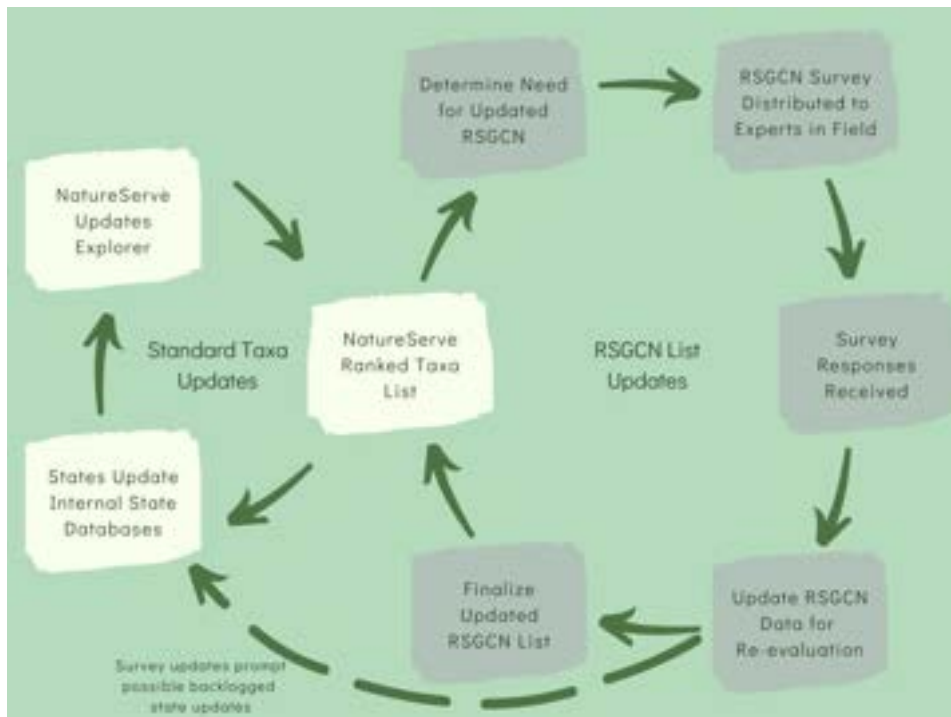
An estimated 1 million plant and animal species will face extirpation because of habitat destruction, invasive species, poacher loss, climate change, and other threats. If we fail to enact change.<sup>6</sup>

### HOW YOU CAN HELP CONSERVE PLANTS

- Integrate plant conservation with efforts to conserve wildlife diversity
- Recognize the important role of plants and natural ecosystems in climate resilience and social & environmental justice
- Incorporate native plant restoration and conservation into green infrastructure legislation
- Support the Diversity Bill to enhance scientific capacity through the support of botanical research, training, and employment
- Fund State & Tribal Wildlife Grants
- Facilitate the inclusion of plants in State Wildlife Action Plans
- Fund programs in urban communities that promote public health, climate resilience, and social & environmental justice
- Support the Bureau of Indian Affairs in conserving and restoring native plant communities to Native American communities
- Increase Endangered Species Act funding for plant species
- Support Recovering America's Wildlife Act

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# Complementary Data Updates



## Standard taxa updates

- Ongoing process with NatureServe network member programs
- Ensures consistent updates to taxa lists and rankings

## RSGCN list updates

- Request updated information
- Technical teams overview updates
- Prioritize species for conservation
- Survey also prompts state updates

# SE Plants RSGCN Working Groups

## Planning Team

Jon Ambrose  
Carrie Radcliffe  
Emily Coffey  
Sarah Norris  
Amanda Eberly  
Wesley Knapp  
Misty Nelson  
Karen Terwilliger  
Tracy Rice  
Alan Weakley

## Technical Team\*

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Amy Jenkins - FL  
Lisa Kruse - GA  
Chris Doffitt - LA  
Malissa Briggler - MO  
Heather Sullivan - MS  
Brenda Wichmann - NC  
Bruce Hoagland - OK  
Tara Littlefield - KY  
Keith Bradley - SC  
Todd Crabtree - TN  
Jason Singhurst - TX  
John Townsend - VA  
John Burkhart - WV

*\*NatureServe Network Member Program  
representatives from each state*

## Survey Team\*\*

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Theo Witsell - AR  
Amy Jenkins - FL  
Hannah Rosner-Katz - FL  
Stephanie Koontz - GA  
Lisa Kruse - GA  
Gemma Milly - GA  
Mincy Moffett - GA  
Carlee Steppe - GA  
Chris Doffitt - LA  
Malissa Briggler - MO  
Scott Wiggers - MS  
Hannah Sullivan - MS  
Gary Kauffman - NC  
Lesley Starke - NC

*\*\*Surveys completed by botanists from NatureServe Network Member Programs,  
the USDA Forest Service, and the U.S. Fish & Wildlife Service*

Brenda Wichmann - NC  
Bruce Hoagland - OK  
Mark Howery - OK  
Tara Littlefield - KY  
Elizabeth Raikes - KY  
Devin Rodgers - KY  
Keith Bradley - SC  
Samantha Tessel - SC  
Todd Crabtree - TN  
Caitlin Elam - TN  
David Lincicome - TN  
Mark Pistrang - TN  
Anna Strong - TX  
John Townsend - VA  
Brian Streets - WV