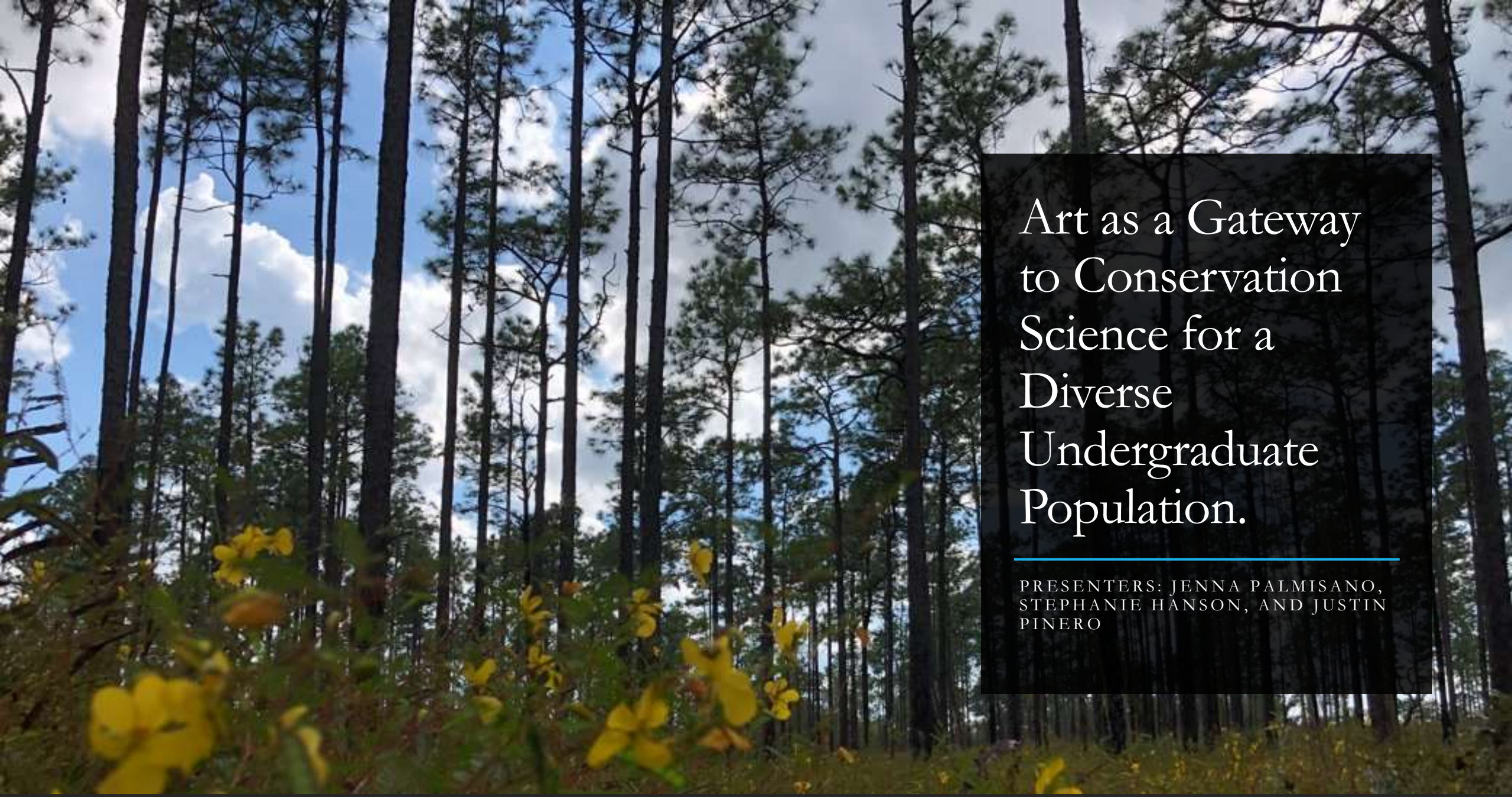


Art as a Gateway to Conservation Science for a Diverse Undergraduate Population.

PRESENTERS: JENNA PALMISANO, STEPHANIE HANSON, AND JUSTIN PINERO

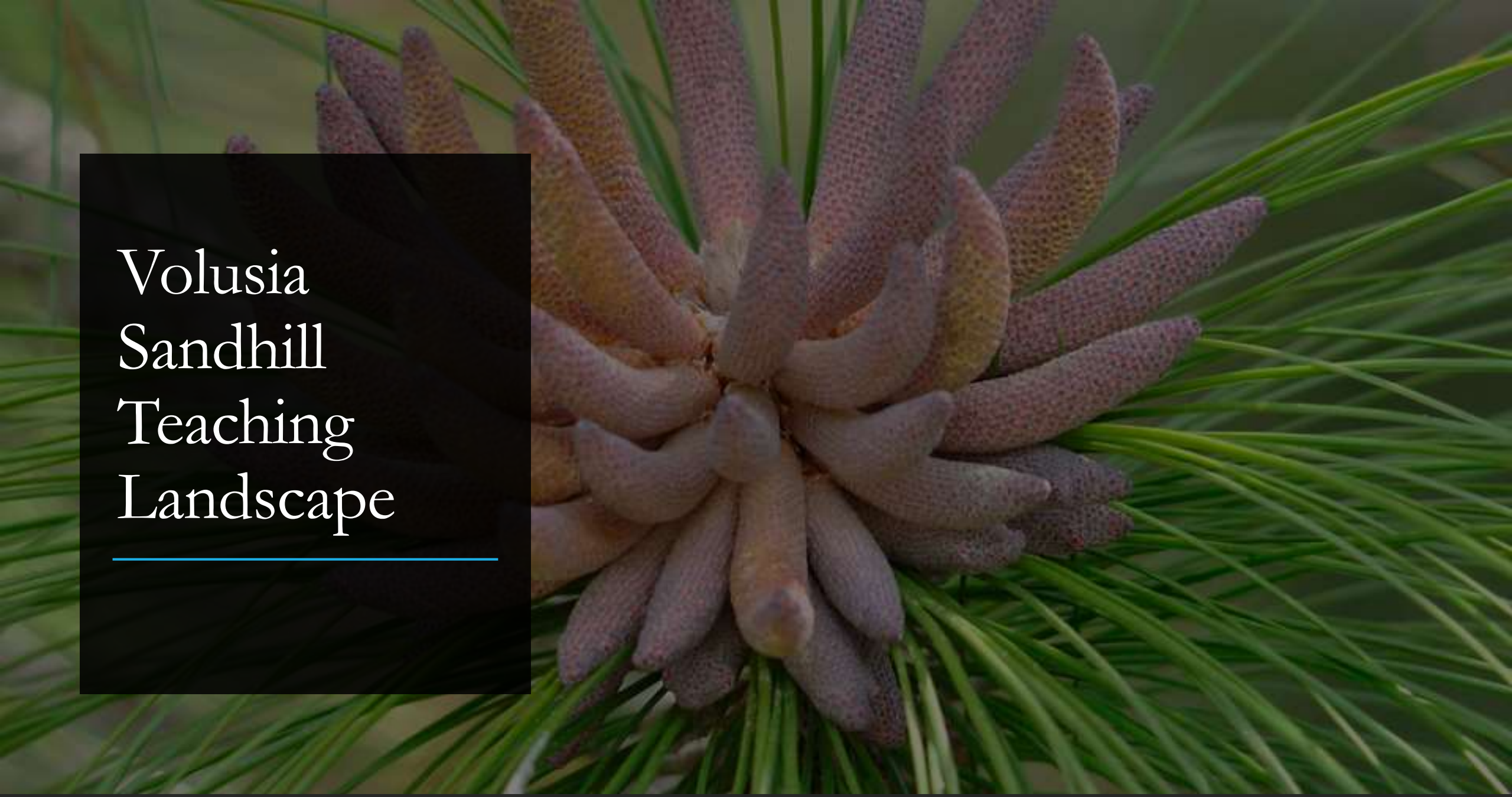
Volusia Sandhill Interns

- Jenna Noel Palmisano, Aquatic & Marine Biology Major, Environmental Studies Minor
- Justin Antonio Pinero, Biology
- Stephanie Elaine Hanson, Environmental Studies

Diversity in Learning

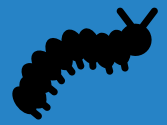
Overview

- Creative workshops develop connections with nature that lead to undergraduate engagement
- Our goals:
  - To encourage a deeper concern and responsibility for conservation and restoration of native ecosystems
  - To raise awareness about and strengthen commitment to ongoing projects on campus and in the community
- The outcome:
  - We see improvement in engagement with a shift from strictly outlined activities to creative workshops



Volusia Sandhill Teaching Landscape

Urban Restoration



The Volusia Sandhill Ecosystem is a 0.5-ha restoration of the longleaf pine sandhill habitat native to central FL

This teaching landscape focuses on sandhill restoration and environmental education.

Ongoing restoration and interpretation provides a range of opportunities for faculty and undergraduate research.

Apr. 2011

Apr. 2013

Mar. 2014

Sep. 2011

Aug. 2014

Oct. 2019

Timeline: Established April 2011

Everyday Activism

Landscape maintenance, seed collection, invasive species removal, and educational activities.

Importance of Sandhills

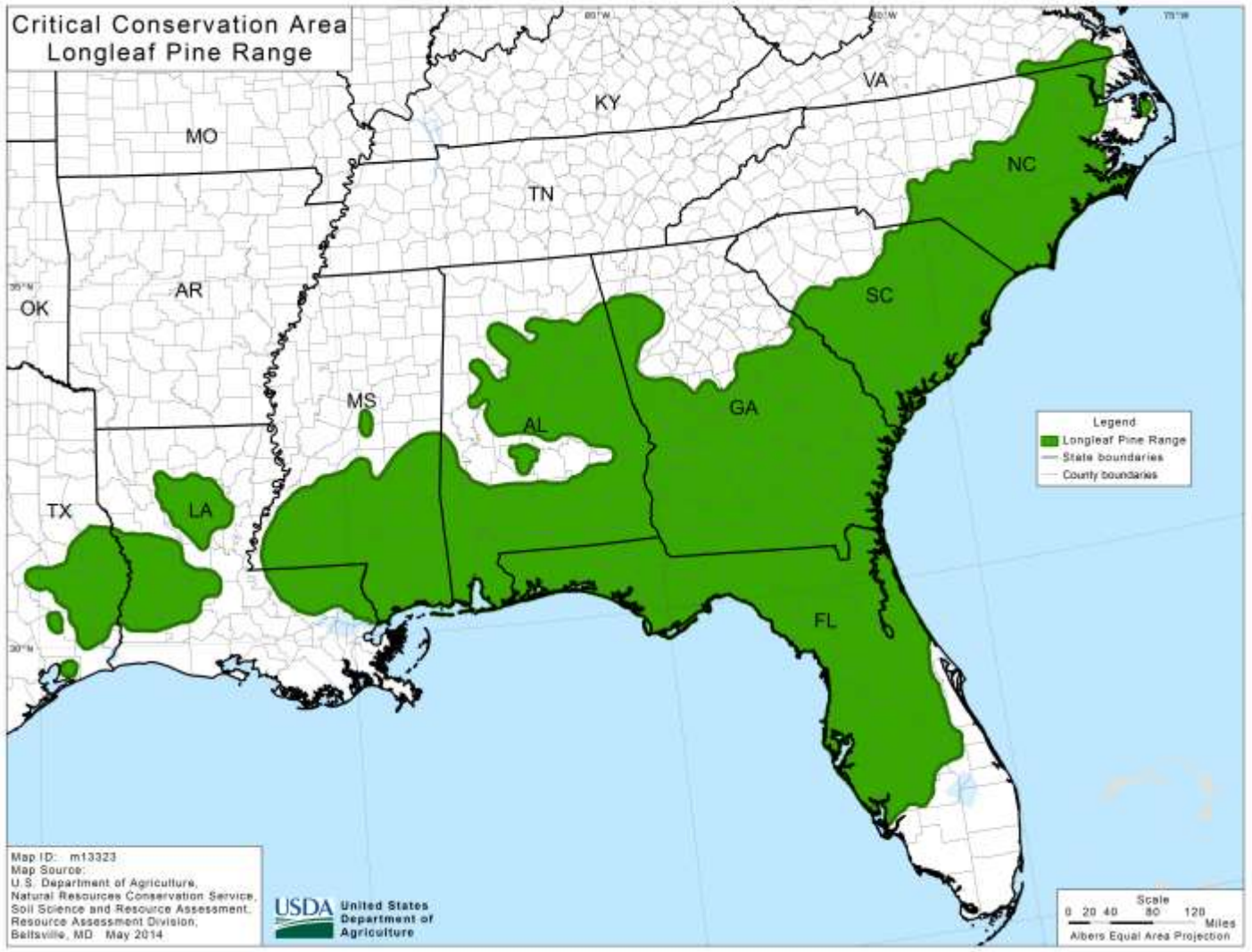
Biodiversity

Endemic species

Historic range

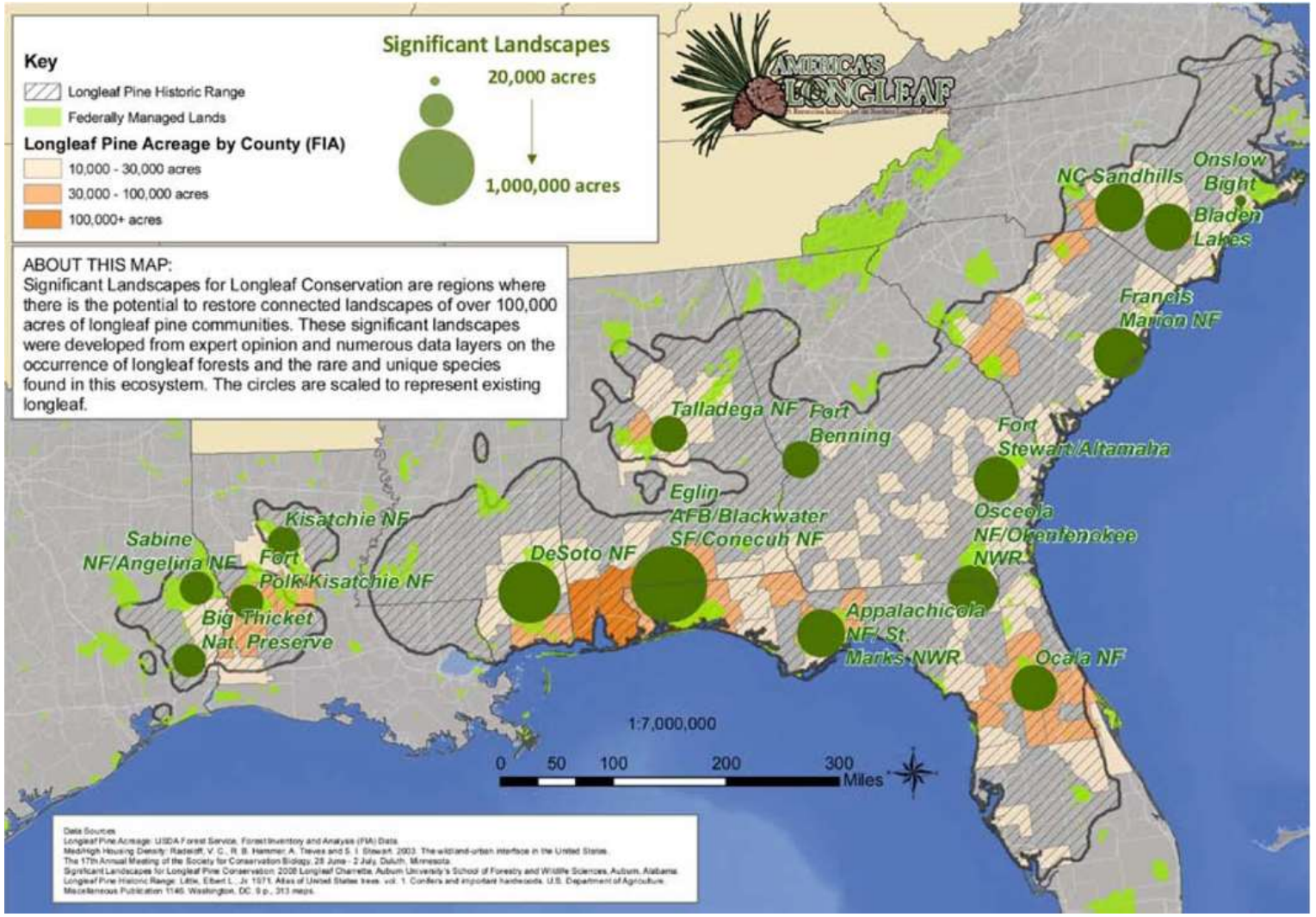
Urban restoration

Why is restoration important for conservation and how do we convey this message to undergraduates?



https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ga/home/?cid=stelprdb1254129

Historic Distribution of Longleaf Pine Forests ~ 90 million acres



http://www.americaslongleaf.org/resources/maps/

Current Distribution of Longleaf Pine Forests~ 3 million acres

Previous Engagement

- In addition to volunteer workdays, structured activities enforced ecological concepts
  - Worksheets and scavenger hunts (invertebrate and plant anatomy, questions from a walking tour)
- Impact of a Captured Audience
  - Increased attendance with cultural credit opportunity
    - Engaged through necessity rather than interest
- Transition away from structured activities
  - A move to more open-ended questions

Evolving Engagement

A new approach:

- Three creative workshops to engage and to increase awareness
  - Partridge Pea Project
    - A switch from 2D to 3D engagement
  - Watercolor Workshop
    - Aiming for a larger audience
  - Changing Patterns Tapestry
    - Activism beyond initial event

Partridge Pea Project: From 2D to 3D

Participants

- 20 people
- Students and faculty from Environmental Science & Studies, Creative Arts, Digital Arts, Biology

This project was based on artist Jessica Rath's *A Better Nectar* exhibit.

Participants of this workshop created large scale replicas of partridge peas using recycled materials

Partridge pea flower (*Chamaecrista fasciculata*)

Takeaways

1. Project was open to a limited number of people and was isolated

2. The finished project was displayed in Sage foyer- extended undergraduate exposure of the final product

3. Activity was hands on- made the parts of the flower more memorable

Watercolor Workshop: Inclusivity

Participants

- 20-30 Students and faculty
- Friday afternoon cultural credit

Students were invited to venture out into the sandhill and find something that inspired them, and then paint it using watercolors.

Takeaways

1. Event had too little structure which lead to the message of the workshop getting lost.

2. Starting indoors may have contributed to students becoming too comfortable and not going outside.

3. Didn't do anything to encourage long term engagement.

4. No limit on students encouraged more students to attend.

5. No long-term plan

Changing Patterns Tapestry: Expanding Our Audience

Participants

- 50 students and faculty
- Values Day event

Students chose from a variety of mediums: watercolor, data taking, natural journaling, photography, pencil drawing, writing

Collaboration with digital art professor to compile participants' art into a tapestry

Takeaway Checklist was Implemented

- Volunteer workdays
- Lemonade lunches
- Post a picture of yourself at the Sandhill on social media
- Like and share our Wildflower Wednesdays
- Adopt a wildflower
- Get involved with the seed library
- Come to tapestry unveiling

Students and faculty creating art for the collaborative tapestry on Values Day 2019.

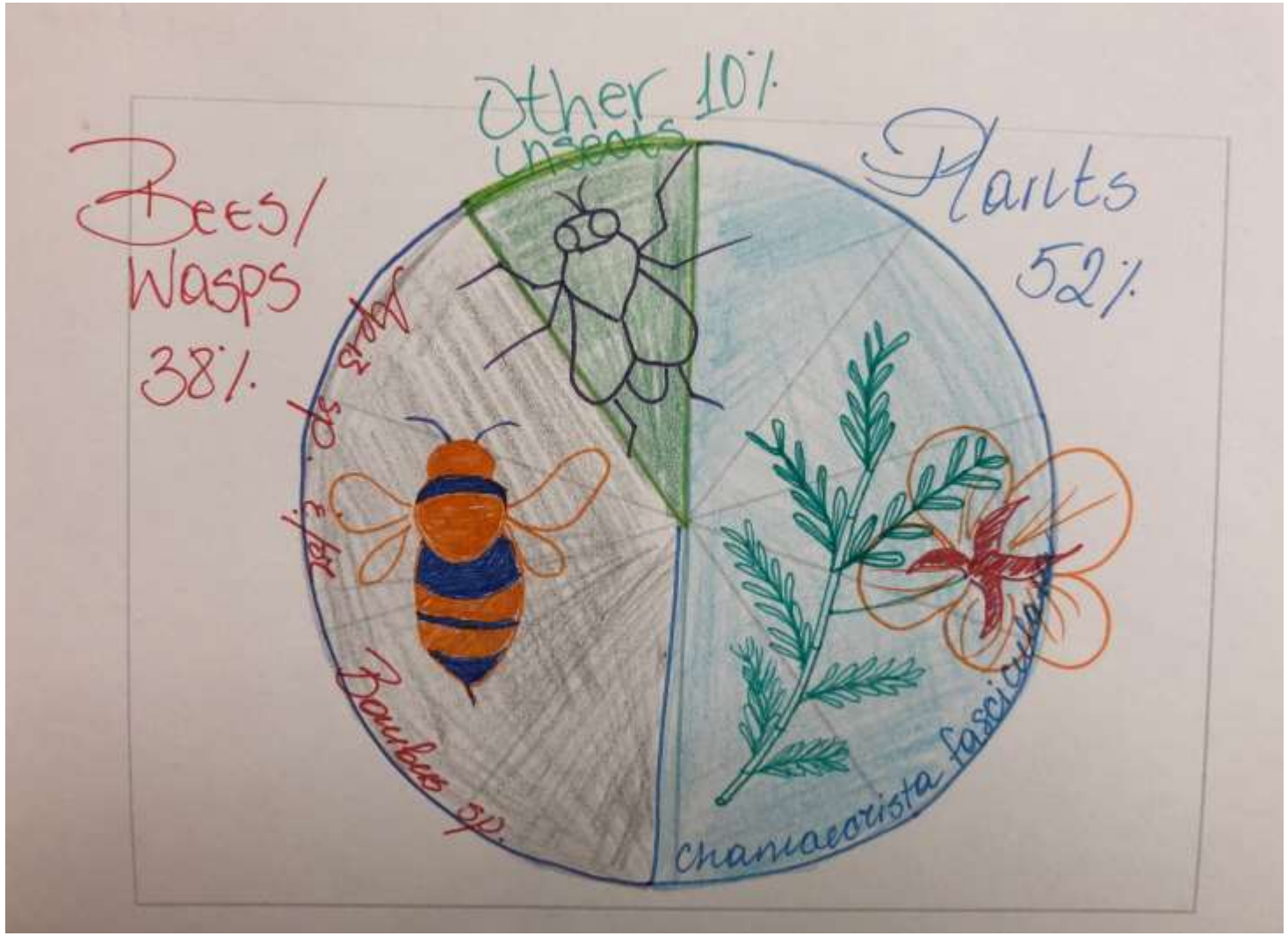
Student Art from the Tapestry Creation

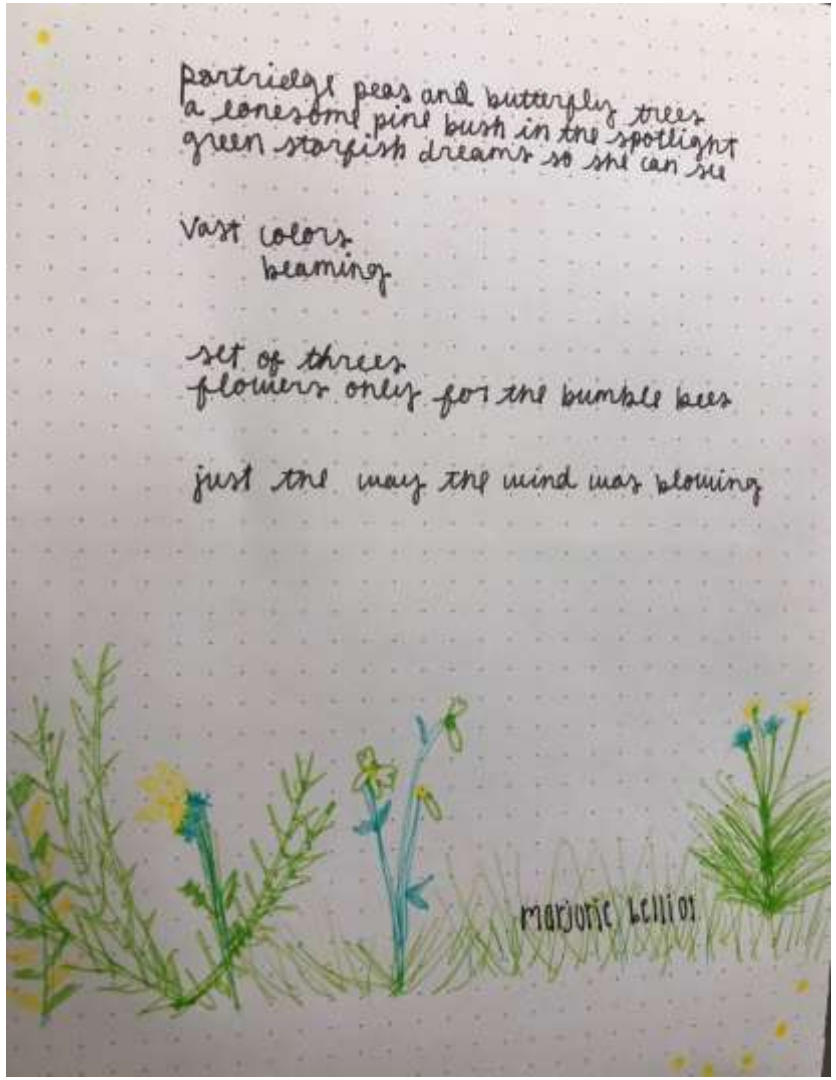
Genus: Berlandiera
Species: subacaulis

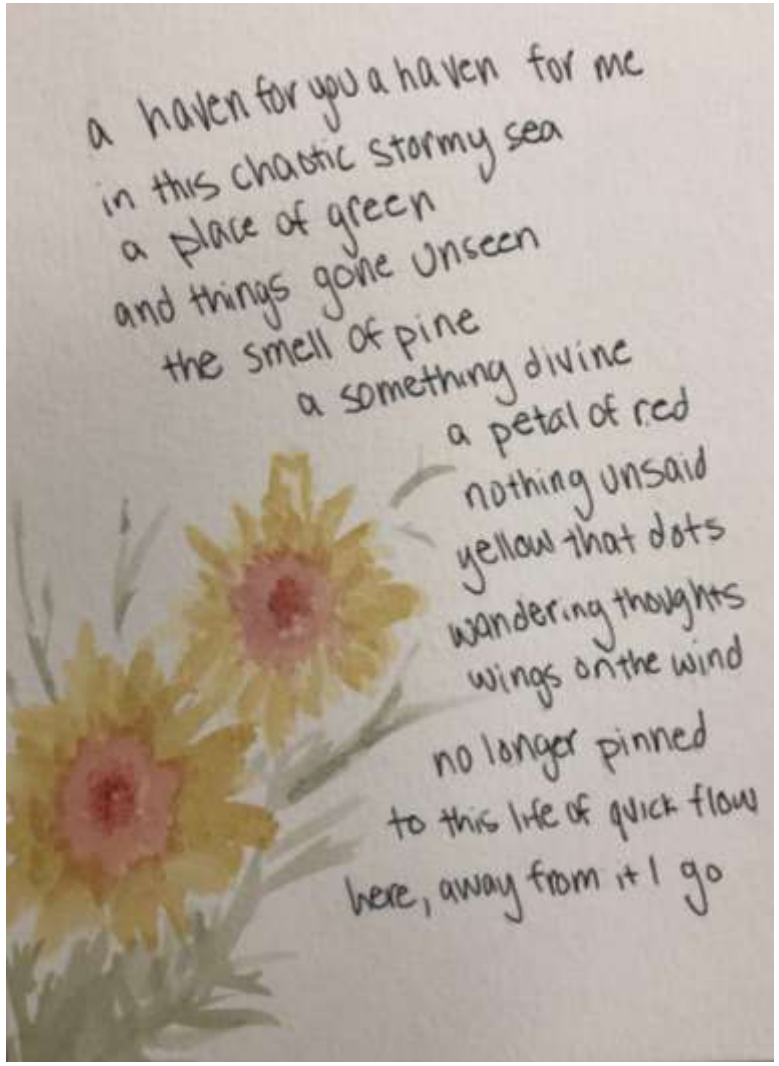
Common Name: Florida Greeneyes

Florida Greeneye is a perennial herbaceous wildflower that typically occurs in Sandhill ecosystem. Florida Greeneye does well in sandy low nutrient soil. It grows well in the Volusia sandhill restoration site. Additionally it attracts a wide variety of pollenators. It has eight large yellow petals. It looks as though yellow petals are arranged in a circular pattern and occurs as eight petals. The middle of the petals appears to have inflourescents (a grouping of individual flowers). Flowers appear to grow in large clusters rather than flowers growing as spaced individuals Florida Greeneye is also endemic to Florida and is found throughout central Florida and Western Florida. It prefers soil pH's of 5.1 - 7.5 and grows to a typical height of 12-18 inches (30-45 cm) tall. It emerges between March and May and looks very similar to its fully developed form. It also has a very hardy root system which helps the plant survive times of drought.

Date: 9/24/2019
Location: DeLand, Florida


Other 10%
Bees/
Wasps
38%
Plants
52%
Apis sp.
Bombus sp.
Chamaecrista fasciculata


partridge peas and butterfly trees
a lonesome pine bush in the spotlight
green starfish dreams so she can see
vast colors
beaming
set of threes
flowers only for the bumble bees
just the way the mind was blooming
marjorie lelliot


a haven for you a haven for me
in this chaotic stormy sea
a place of green
and things gone unseen
the smell of pine
a something divine
a petal of red
nothing unsaid
yellow that dots
wandering thoughts
wings on the wind
no longer pinned
to this life of quick flow
here, away from it I go

CHANGING PATTERNS

During this year's Values Day, over thirty students, faculty, and staff members gathered at the Rinker Environmental Learning Center to reflect on how the Volusia Sandhill Ecosystem restoration has evolved since its initiation in 2011. The transformation from a grass monoculture to a diverse system of Florida native plants has led to concomitant increases in the number of visiting pollinators and other beneficial invertebrates, as well as birds, reptiles, and amphibians. This exponential increase in biodiversity is a result of everyday activism. This activism–by students, researchers, and community volunteers–has meant the addition of native flora, exotic species removal, the collection and propagation of native seeds, and the sharing of knowledge through educational outreach programs.

The results of this activism are portrayed through the textile panels installed here. As a first step, Values Day participants shared their unique interpretations of the present ecosystem through photography, creative writing, watercolor painting, or nature journaling. Visiting Professor of Creative Arts Madison Creech then selected a motif from every art submission and compiled them in Adobe Illustrator. Using a low fidelity image trace, each motif was stylized and crafted into a cohesive unit that was then printed onto the collection of cotton sateen panels you see before you. Given that our perceptions of natural beauty are often clouded by formulated landscapes, this piece encourages us to recognize the intricate systems that make up a native landscape and redefine how we interact with nature. After all, finding ways to work with nature instead of against it often means changing our own patterns.

Contributors: Workshop artists, Madison Creech, Jenna Palmisano, Justin Pinero, Stephanie Hanson, Cynthia Bennington, and Karen Cole

The tapestry product that includes all students work and was created by Visiting Assistant Professor in Creative Arts at Stetson, Madison Creech.

Takeaways

1. The more structured format with a goal in mind worked better

2. Work was shared with the public through a tapestry that was displayed in the foyer of Sage Hall

3. Set of takeaway checklist activities were not completed/ attended

Overall Takeaways

1. Creativity encourages a big audience
2. A balance is needed between structured and unstructured
3. Collaboration reaches a wider audience
4. Long term engagement is a challenge

Moving Forward...

We are looking to add/do:

- Meditation workshops
- Little Free Library
- Games
- Revamp previous events

Changing Patterns

It's your turn! Go outside and interact with nature in a different way, using art to interpret the land. Choose from the following list of activities:

- Photography

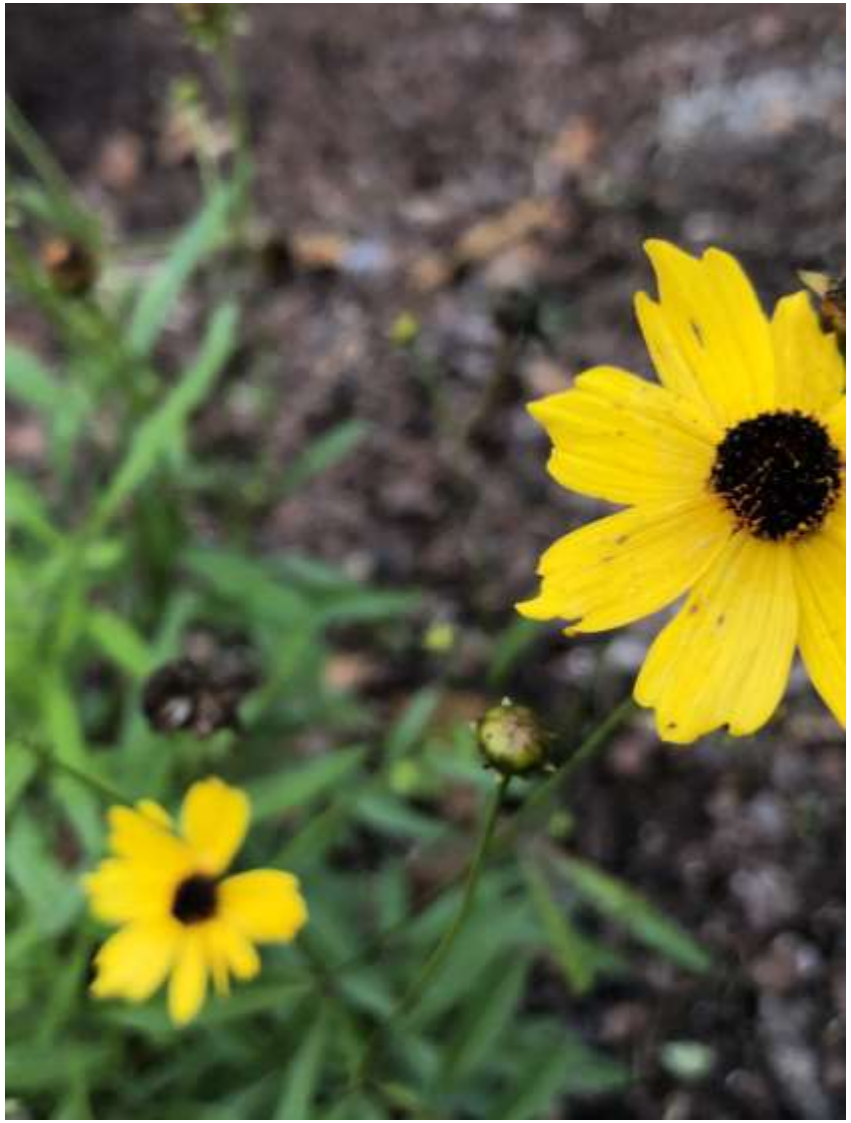
- Watercolor

- Creative writing/ nature journaling

- Sketching

- Any other type of art!

When you are done take a scan or take a picture of your work and send it to gillespiemuseum@stetson.edu and we will post it on our social media!



Suggestions?

We are still exploring methods to further engage undergraduates. If you have any suggestions for undergraduate outreach and engagement, please reach out to us!

Facebook Page: Volusia Sandhill Ecosystem Teaching Landscape

Instagram: @gillespie_museum

Twitter: @GillespieMuseum

Email: gillespiemuseum@stetson.edu