



# Choose Native

## Coordinated Invasive Plant Outreach

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# Statewide Collaboration



An example of collaboration across many programs

- Pennsylvania Sea Grant, Great Lakes Commission, Penn State Extension Water Team, Penn State Extension Master Watershed Stewards
- Richard King Mellon Foundation funding



# Choose Native Team



Beth Yount  
Penn State Extension



Zach Nemec  
Pennsylvania Sea Grant



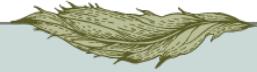
Justin Mansberger  
Penn State Extension



Amber Stilwell  
Pennsylvania Sea Grant  
Penn State Extension



# Many Thanks to our Volunteers!



## Master Watershed Stewards:

Marty Drabic  
Jon Braeger  
Amy Albrecht  
Bethany Hurley  
Ron Dombrowiak  
Linda McGarvey  
Elizabeth Dropp  
Alan Dilla  
Meghan Hanney  
Jean Ganger

## Master Gardeners:

Jennifer Koch  
Rita Orinko  
Pamela Moore  
Anne Quinn  
Jennifer Cordivari  
Patti Williams

# Impacts of Invasive Plants



Hydrilla infestation (Credit: Brian Pilarcik)

- Harm native species
- Increase competition between native species
- Alter habitats
- Impact recreation and tourism
- Safety concerns
- Impact economy
- Water quality impacts

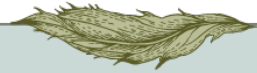
# Importance of Native Species

- Support habitat
- Benefit water quality
- Provide adequate resources
- Diversify and strengthen gene pool and ecosystem
- Provide ecosystem services
- Cultural significance

Native butterfly weed and blackeye Susan's attract a monarch butterfly  
(Credit: Jennifer Koch)



# Invasive and Nonnative Introductions



- Sale of ornamentals is a primary pathway for invasive species introduction to the United States
- Chosen for ease of care, aesthetics, durability
  - 64% of all deliberate introductions are ornamental plantings
- 61% of US invasive plants still available for purchase
  - (2021 study by Beaury, Patrick, and Bradley)





# Water Garden Introductions



- 
- Water gardens built and designed to display nonnative aquatic plants and fish
  - Accidental introductions
    - rainstorms washing plants, seeds, animals, and other items from a water garden to a nearby waterway
  - Deliberate introductions
    - draining or dumping water garden plants and animals into a nearby waterbody



## Case in Point: Water Hyacinth

- Native to the Amazon Basin
- Introduced to Florida waterways as a “souvenir”
- One of the fastest growing known plant species
- Took Florida over 100 years and millions of dollars to control (limited)
- Banned in many states-Illegal to possess in FL
- Remains available over the internet for \$4



# Choose Native Project

A known pathway of aquatic invasive plants into the Great Lakes region is the accidental and purposeful introduction of nonnative species through water gardening and landscaping.

This pilot project aims to...

- Deliver invasive plant prevention information to water garden hobbyists and landscapers from trusted sources
- Build a market for native plants
- Provide community members with the tools needed to prevent the spread of invasive species



## Step 1: Engage Primary Audience through Volunteers



- Create a group of volunteers throughout Pennsylvania
- Establish survey for nurseries, wholesalers, aquarium shops, and plant sellers (growers/sellers)
- Connect with growers/sellers to complete surveys
- Disseminate anonymous survey through Pennsylvania Landscape and Nursery Association (PLNA) and others

## Step 2: Survey & Compile



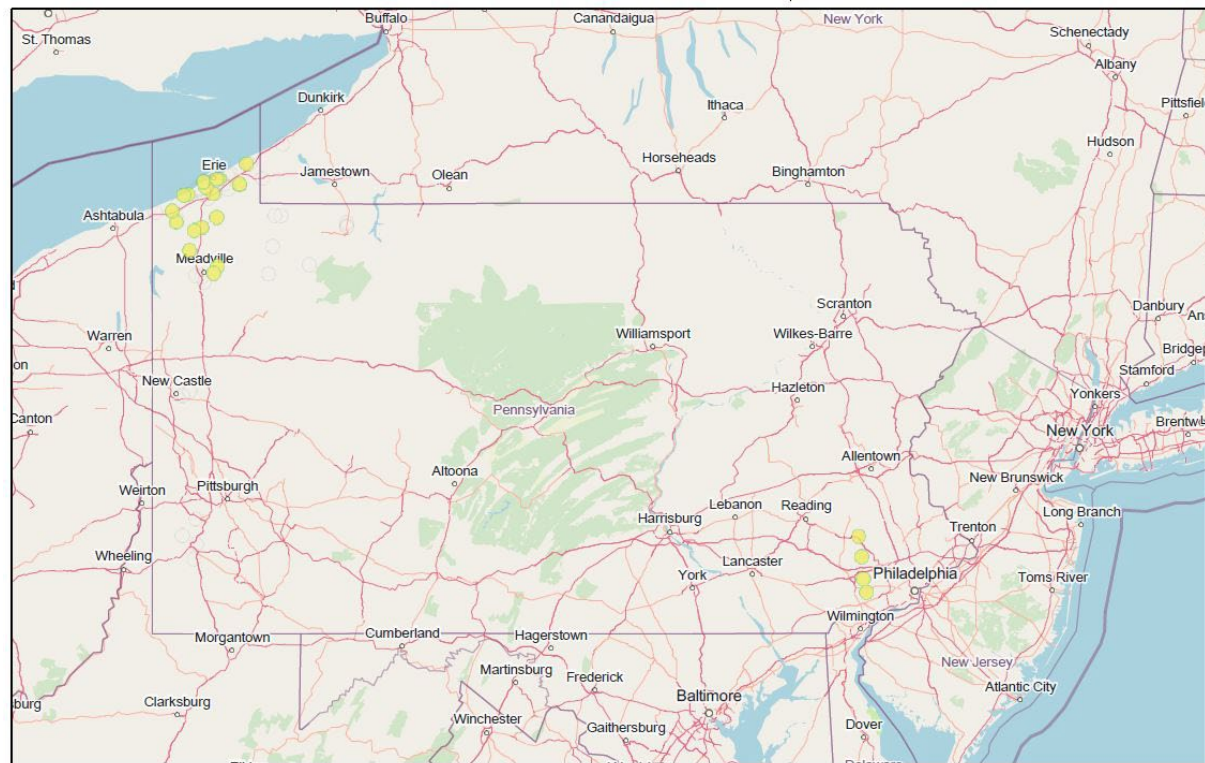
- Established list of commonly used invasive or ornamental species
  - Suggestions from growers or sellers
  - Frequently requested plants by community
  - Top sellers in various categories
    - Trees, shrubs, annuals, perennials, aquatics

# Survey Responses

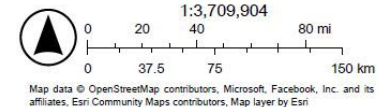
33 total responses

- 21 responses to volunteers (non-anonymous)
- 12 anonymous responses to electronic survey through PLNA newsletter

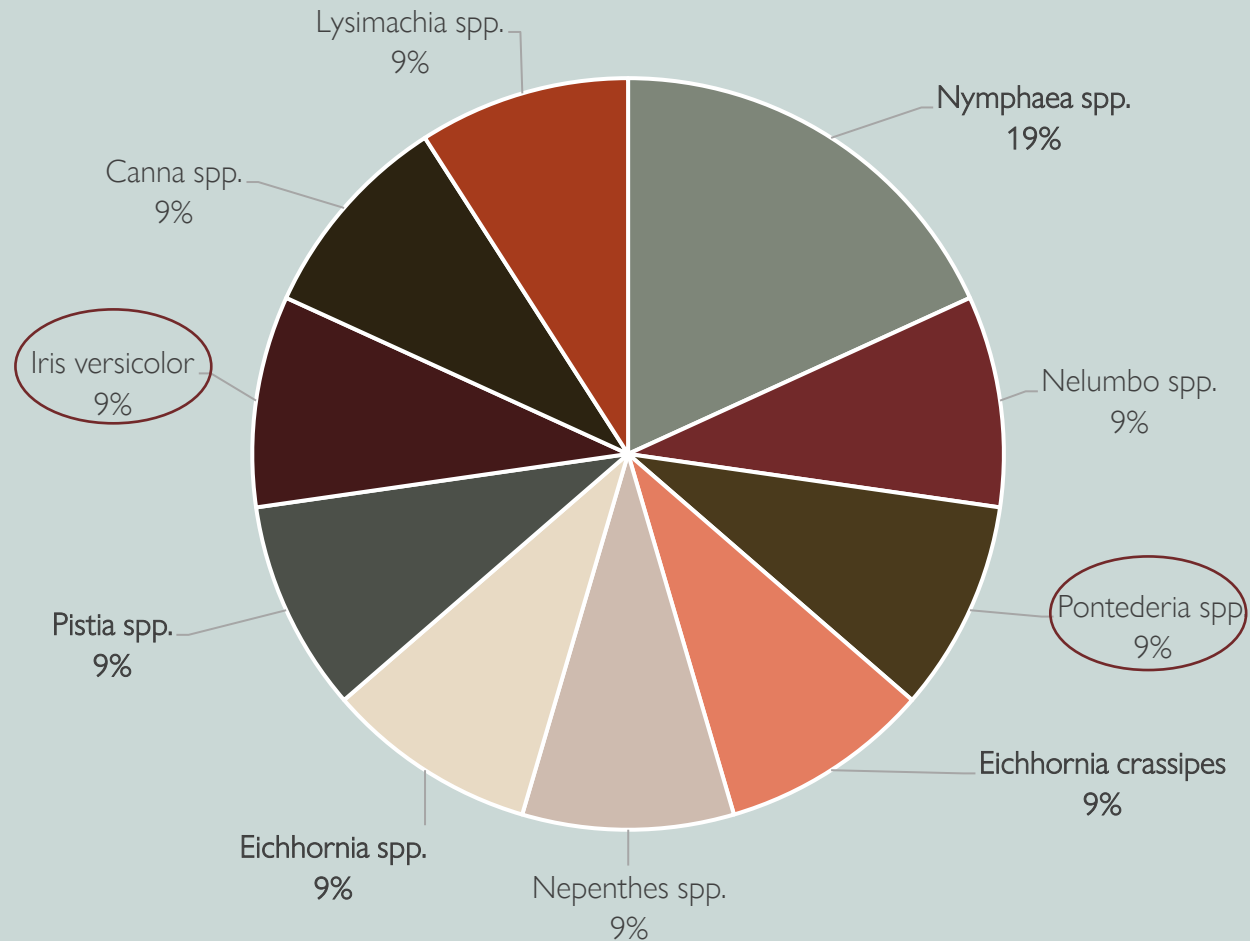
Location information presented for 21 non-anonymous responses



9/8/2023



## Top Selling Aquatic Plants according to Survey Respondents



Water lily is the top selling aquatic plant. Native species can be suggested. Other species were all equal in top selling category.

*Pistia* (water lettuce) and *Eichhornia* (water hyacinth) are within the responses and are two extremely invasive plants common in the water gardening industry.

## Step 4: Native Alternatives



- Establish native alternatives with similar qualities to the invasive species and ornamentals
  - bloom time,
  - growth height,
  - flower color,
  - soil and light requirements,
  - water depth and quality considerations,
  - hardiness zone

# Example: Water Hyacinth (*Eichhornia crassipes*)

Native to South America, Water Hyacinth is incredibly invasive in warm regions of North America due to its ability to grow fast and push out native emergent species



Characteristics	Water Hyacinth ( <i>Eichhornia crassipes</i> )
Growth Height	1 foot
Flower Color	Lilac / Lavender
Bloom Time	June – September
Water Body Type	Ponds, water gardens
Light Requirements	Sun
Hardiness Zone	9 – 11



Characteristics	Pickerel Weed ( <i>Pontederia cordata</i> )
Growth Height	4 feet
Flower Color	Blue / Purple
Bloom Time	March – November
Water Body Type	Ponds, marshes, shallow water
Light Requirements	Sun, part shade
Hardiness Zone	3 – 10



# Step 5: Choose Native Workshops for Landscapers & Water Gardeners



## Northwest Pennsylvania

- Erie, PA
- March 5, 2024
- Tom Ridge Environmental Center

## Philadelphia Area

- Philadelphia, PA
- March 7, 2024
- John Heinz National Wildlife Refuge

## Pittsburgh Area

- Pittsburgh, PA
- March 8, 2024
- South Park, Allegheny County Conservation District

### Goals:

1. Identify and manage key invasive and/or ornamental species
2. Obtain skills in native plant landscaping and water gardening
3. Create a management plan for invasives and native replacements





## Step 6: Create a Market for Native Plants



# Survey Responses: Industry Barriers for Increased Native Species Sales



- Many native plants lack appeal of ornamentals
- Some native plants can be unruly and less showy
- Lack of suppliers with straight species or stock large enough for landscaping
- Native plants don't sell as well as ornamentals
- Showy, long-lasting blooms desired by customers
- Too busy to expand into selling native species
- More education about native species in landscaping is needed

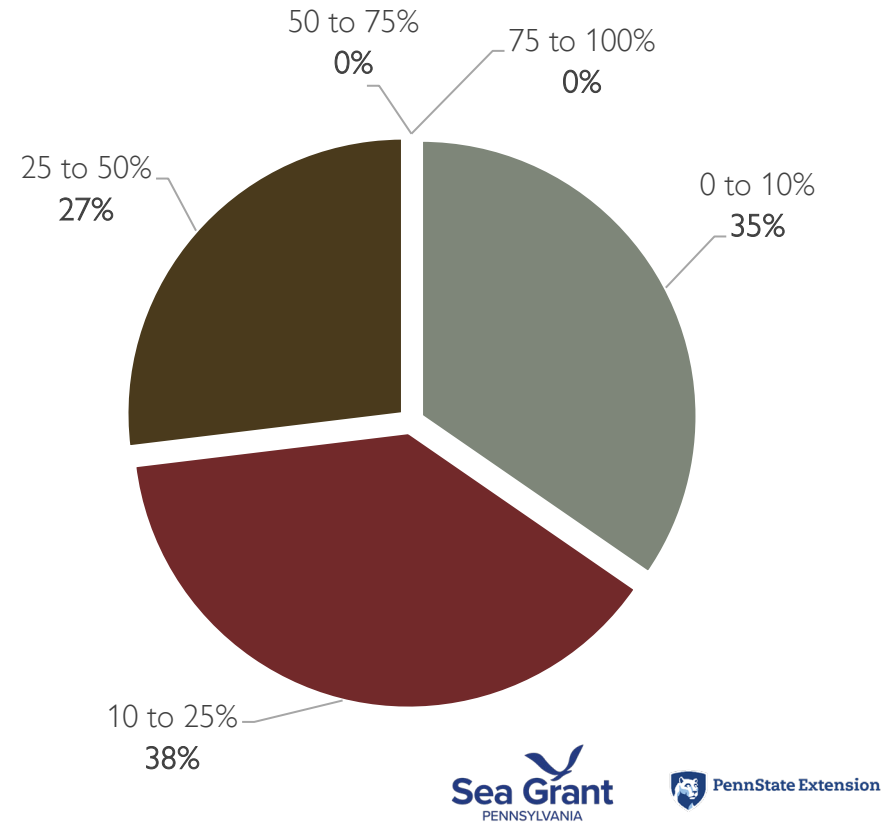


# Customer Requests

Growers and sellers were asked how frequently customers request native plants

- Native plants are not frequently requested by consumers
- Consumer driven requests for native species will play a key role altering the future of native plants in landscaping and water gardening.

Percentage customers requesting native plants



# Conclusions



- Change starts with consumers in a consumer driven industry
- Thoughtful and intentional landscaping and water gardening
  - Not deterring use of *all* nonnatives, cultivars, or introduced species
  - Suggesting more thoughtful approach
    - Can the same (or similar) look/function be achieved with native species?
    - Can native species be incorporated to enhance ecosystem benefits?
    - Can we change our perspective about the look and feel of landscapes and water gardens?
    - Can we manage landscapes/properties in an economically *and* environmentally beneficial way?

# Be on the look out!



- Choose Native booklet
- Pennsylvania Choose Native Workshops
- Great Lakes Commission Regional webinar for those interested in launching Choose Native in other Great Lakes states and territories



Thank you!



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[www.seagrants.psu.edu](http://www.seagrants.psu.edu)

<https://extension.psu.edu/>



# Resources

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