

# Wild Plant Program

## Proposed Changes to Title 17, Chapter 45 Conservation of Native Wild Plants



# Discussion Topics

## Plants and Regulations

- Wild Plant Program
- Listing Process
- Proposed Chapter 45 changes
- Timeline

# Wild Plant Program



Pink lady's-slipper



## *BOF mission:*

The mission of the Bureau of Forestry is to ensure the long-term health, viability, and productivity of the Commonwealth's forests and to conserve native wild plants.

# Wild Plant Program:

*Conserve native wild plants*



Native Wild Plant: Any plant species growing in PA before European colonization.

<u>PA Flora</u>	
Total Vascular Plants in PA	~3000*
	(includes subspecies & varieties)
Total Native Plants in PA	2,084*
	(about 2/3 of all vascular plants)
Listed Species	604
(Endangered, Threatened, Rare, Extirpated, Tentatively Undetermined)	
<i>* These numbers are approximate. This is the most up-to-date information available to DCNR. The number of species varies depending on the reference source used, and its inclusion or exclusion of varieties and subspecies.</i>	

# Wild Plant Program

## *Leadership*



Bloodroot

# Leadership

- Botanical expertise in PA
  - DCNR Staff
  - PNHP Staff
- Botanical work in:
  - Policy & Programs
  - Field Work & Inventories
  - Habitat Management
- Education
  - PA Botany Symposium
  - Botanists' Workshops
  - Specialty Trainings



# Wild Plant Sanctuary Program

*Voluntary program to recognize best examples of habitat for native rare plants*

- Public lands—50
- Private lands—15

## Criteria:

- Supports plants that are rare, threatened, or endangered in Pennsylvania (naturally-occurring, not from nursery stock)
- Contains host plants for rare moths, butterflies, and other arthropods
- Includes outstanding or unique natural features or plant communities
- Is being maintained or managed using ecologically sound practices

Virginia bluebells



Columbine



Purple loosestrife

# Invasive Plants

- Introduced, exotic*
- Spread quickly*
- Displace natives, change habitat*

- DCNR Invasive Species Management Plan
- State Park and Forest lands Invasive Mgmt
- Outreach and Education
- Online Invasive Tool

DCNR Home : Forestry : Wild Plants : Invasive Plants

## Invasive Plants

Invasive plants are plants which grow quickly and aggressively, spreading and displacing other plants. Invasive plants are usually introduced by people either accidentally or on purpose, into a region far from their native habitat. Invasive plants are often referred to as "exotic" "alien" introduced" or "non-native" species. In their natural range, these species are limited by environmental, pest or disease conditions, keeping these species in balance within their ecosystem. When introduced into an area where these limitations are absent, some species have the ability to become invasive. These are the species we are concerned about in conservation.

[Invasive Species Resources](#)  
Explore an invasive exotic plant tutorial and other resources on the identification, ecology and control of invasive animals, insects and plants.

Recognition of the problem of invasive plants is growing, at the same time as damage to native ecosystems is mounting. Identifying invasive plants and understanding the potential damage they can cause is essential to stopping their spread and protecting native vegetation. Invasive plants tend to appear on disturbed ground. The most aggressive can actually invade existing ecosystems. Invasive plants are generally undesirable because they are difficult to control, can escape from cultivation, and can dominate large areas. In short, invasive plant infestations can be extremely expensive to control, as well as environmentally destructive.

A small number of native plants can become "weedy" meaning they become aggressive after the landscape is altered. But the fundamental condition here is the disturbance of the habitat that upsets the balance. This is not true "invasiveness".

### Fact Sheets

The tabs below provide a library of information about troublesome trees, shrubs, vines and herbs that have impacted the Commonwealth and suggest actions you can take to protect your property from invasive plants.

[What Can I Do?](#)   [Characteristics & Impacts](#)   [Trees](#)   [Shrubs](#)   [Vines](#)   [Grasses](#)   [Herbs](#)   [Aquatic Plants](#)

### What Can I Do About Invasive Plants?

The best insurance against future problems is to avoid the use of known invasive plants and educate others about the problems of invasive species. This website lists many of the plants that are considered invasive in Pennsylvania. Plants on this list should not be used around your home or community, because they can spread quickly and cause serious damage.



Japanese stiltgrass



# Native Plant Species

- Native Seeding
- Native Landscaping
- Resources for Landowners
- Bureau of Forestry: example

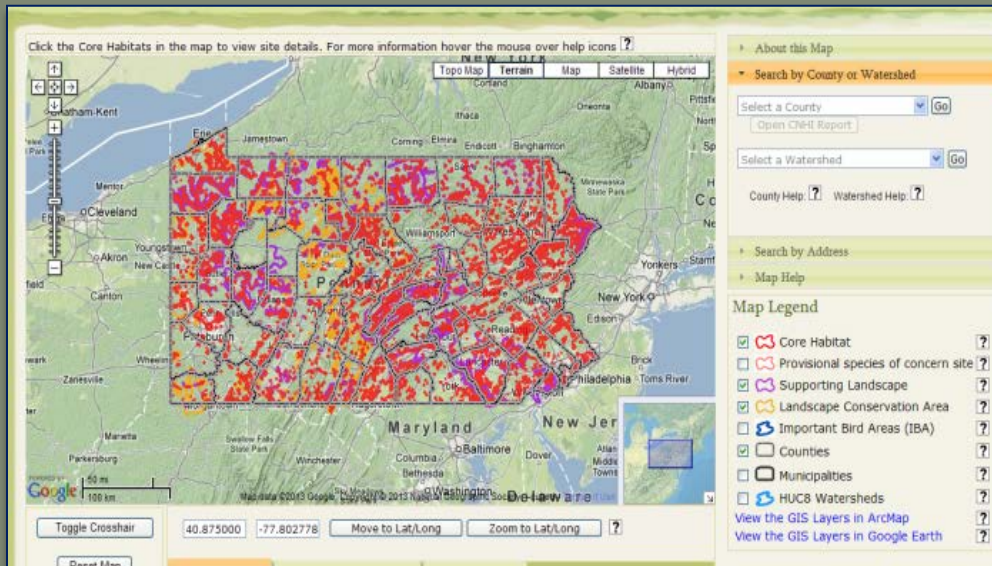


Black-eyed Susan



Butterfly weed

# PNHP Inventories and PNDI Environmental Review



## PNDI Environmental Review Tool Statewide Interactive Map

# Wild Plant Program

## Legal Authority over plants in Pennsylvania

### Wild Resource Conservation Act

June 23, 1982, P.L. 597, No. 170 (October 30, 1993)

- main purpose to “preserve and enhance flora and fauna species”
  - Determine status of wild plants
  - Enforcement system to protect plant species
  - Permit for Collection
  - License for selling Vulnerable Species
  - Public and Private Wild Plant Sanctuaries



### Chapter 45: Conservation of Pennsylvania Native Wild Plants

Title 17, Chapter 45 (formerly Title 25, Chapter 82)

- To Implement the Wild Resource Conservation Act
  - BOF carries out Ch. 45 Regulations
  - Houses the list of classified plants
  - Definitions of classifications

# Wild Plant Classifications

## Definitions:



- **Extirpated**
    - Believed to be extinct from PA; may or may not exist outside PA. If an Extirpated plant species is found to exist, the species automatically becomes Endangered.
  - **Endangered**
    - In danger of extinction throughout natural range in PA, if critical habitat is not maintained or if the species is greatly exploited.
  - **Threatened**
    - May become endangered throughout natural range in PA, if critical habitat is not maintained to prevent their further decline, or if exploited.
  - **Rare**
    - uncommon in PA because they may be found in restricted geographic areas or in low numbers throughout this Commonwealth
  - **Tentatively Undetermined**
    - Believed to be in danger of population decline—unsure due to taxonomic uncertainties or evidence; Taxonomic status uncertain of questionable
- 
- **Special Concern Populations:** Colonies, groups or single individuals of a unique occurrence in PA deserving protection; unusual geographic locations, unisexual pops
  - **Vulnerable:** In danger of decline b/c of beauty, economic value, use as cultivar or other removal reasons

# Listing Process



- Continually evaluating species and listings
  - habitat conditions across PA not static
  - new scientific info from inventories and field investigations
- Process for Adding, Deleting, & Changing Listings
  - PA Biological Society (PABS)
    - 11 technical committees studying flora and fauna
    - Vascular Plant Technical Committee (VPTC) for plants
    - Rare Plant Forum: public discussion group

# Listing Process



- *Data Gathering*
- VPTC Members
  - Expert botanists from universities, natural history museums, conservation organizations, environmental consulting firms, and state and federal agencies
  - Meet 2 times a year
- Public function: Rare Plant Forum (RPF)
  - RPF Members: professional and amateur botanists, consultants, botanical society members
  - Meet once a year
  - Make recommendations to VPTC for listing changes
- VPTC makes recommendations to DCNR for listing changes
- DCNR takes information & data presented and determines appropriate categorization and taxonomy for wild plant species.

# VPTC and Listing Process



- Data used to make changes or suggestions:
  - Botanical field inventories and surveys by DCNR ecologists, academia, environmental consultants, and the PNHP biologists
  - Known occurrences of species tracked through PNDI database
  - Scientific research on species taxonomy
  - Historical records maintained at museums and universities
- Factors considered when determining listing status
  - Number of individuals, Number of known sites
  - Degree of threat to the species
  - Rare or specialized habitat; Habitats declining due to management practices
  - Securely protected in a natural area
  - Lack of survey information
  - Vulnerable life history, such as dependence on a single species for pollination

# Chapter 45

## Proposed Regulation changes:

What's Proposed...



1. Name Changes and Edits

2. Classification Changes: adding, moving, deleting species



# Regulation Update Process

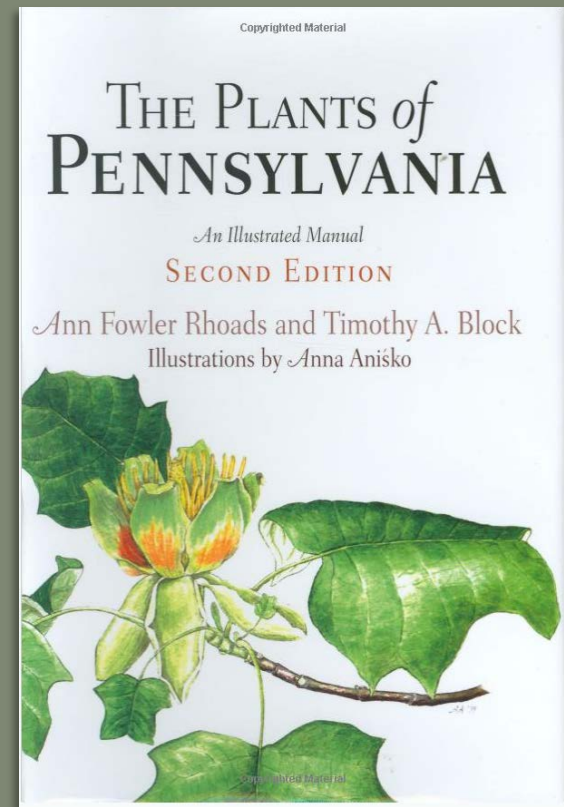


- Input from Stakeholder Groups: Botanical Experts and Public
  - VPTC & RPF
- DCNR Develops Proposed Regulation changes
- Regulation Process: 2x's as proposed and final
  - Gov's office, Office of Budget, Attorney General, Legislative Committee's
  - Independent Regulatory Review Committee (IRRC)
  - PA Bulletin

# Proposed Changes

# 82 Proposed Name Changes & Reference change

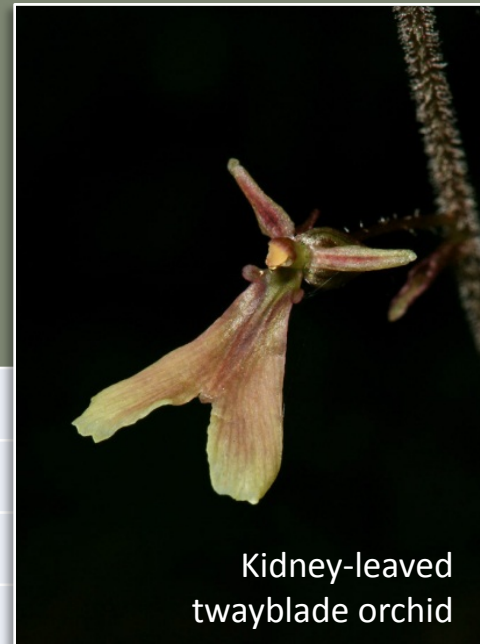
- Scientific names often change
  - Reflect those changes in the regulation change (regardless of classification change)
  - Update the reference used as the authority for a species name
- Reference: *Plants of Pennsylvania*, vol. 2



- Some Examples:
  - *Euthamia tenuifolia* → *Euthamia carolinana*
  - *Tomenthera auriculata* → *Agalinis auriculata*
  - *Cimicifuga racemosa* → *Actaea podocarpa*
  - *Aster* → *Symphiotrichum*
  - *Panicum* → *Dichanthelium*
  - *Lycopodium* → *Lycopodiella*

# Plant Classification Changes

Native Wild Plant: Any plant species growing in PA before European civilization.



<u>PA Flora</u>	<u>Number</u>
<b>Total Native Plants in PA</b>	
Native Plants	2,084
<b>Listed Species</b>	
Extirpated plants	106
Endangered plants	228
Threatened plants	78
Rare plants	41
Tentatively Undetermined	148
Vulnerable	3
Special Populations	0
<b>TOTAL</b>	<b>604</b>

# Proposed Changes to Title 17, Chapter 45

October 2014

Species Proposed to be Added or Reclassified in Chapter 45				
	<u>Common Name</u>	<u>Scientific Name</u>	<u>Current</u>	<u>Proposed</u>
1	Northern Small Yellow Lady's-Slipper	Cypripedium parviflorum Salisb. var. makasin	N	PE
2	Dwarf Scouring-Rush	Equisetum scirpoides Michx.	N	PE
3	Pumpkin Ash	Fraxinus profunda (Bush) Bush	N	PE
4	A Clubmoss	Lycopodiella margueritae J.G.Bruce, W.H.Wagner & Beitel	N	PE
5	Northern Green Orchid	Platanthera aquilonis	N	PE
6	Huron Green Orchid	Platanthera huronensis (Nutt.) Lindl.	N	PE
7	White Camas	Zigadenus glaucus (Nutt.) Nutt.	N	PE
8	Blue False-Indigo	Baptisia australis (L.) R.Br.	N	PT
9	Bog Goldenrod	Solidago uliginosa Nutt.	N	PT
10	Sand Grape	Vitis rupestris Scheele	PX	PE
11	Downy Willow-Herb	Epilobium strictum Muhl.	PE	PR
12	Silverweed	Potentilla anserina L.	PT	PR
13	Bayard's Malaxis	Malaxis bayardii Fernald	PR	PE
14	Four-Flowered Loosestrife	Lysimachia quadriflora Sims	TU	PX
15	White Milkweed	Asclepias variegata L.	TU	PE
16	Long-Bracted Green Orchid	Coeloglossum viride (L.) Hartm.	TU	PE
17	Gray-Headed Prairie Coneflower	Ratibida pinnata (Vent.) Barnhart	TU	PE
18	Sand Blackberry	Rubus cuneifolius Pursh	TU	PE
19	Checkered Rattlesnake-Plantain	Goodyera tessellata Lodd.	TU	PT
20	Purple Fringeless Orchid	Platanthera peramoena (A.Gray) A.Gray	TU	PT

## Species Proposed to be Removed from Chapter 45

	<u>Common Name</u>	<u>Scientific Name</u>	<u>Current</u>	<u>Proposed</u>
1	Seaside Orach	<i>Atriplex littoralis</i> L.	PX	DL
2	Little Water Duckweed	<i>Lemna obscura</i> (Austin) Daubs	PX	DL
3	Mountain Clubmoss	<i>Lycopodium selago</i> L.	PX	DL
4	Floating Bladderwort	<i>Utricularia inflata</i> Walt.	PX	DL
5	Tufted Foxtail	<i>Alopecurus carolinianus</i> Walt.	PE	DL
6	Smooth Swallow-Wort	<i>Cynanchum laeve</i> (Michx.) Pers.	PE	DL
7	Elephant's-Foot	<i>Elephantopus carolinianus</i> Raeusch.	PE	DL
8	Broad-Leaved Water-Milfoil	<i>Myriophyllum heterophyllum</i> (Michx.)	PE	DL
9	American Lotus	<i>Nelumbo lutea</i> (Willd.) Pers.	PE	DL
10	Leafy Northern Green Orchid	<i>Platanthera hyperborea</i> (L.) Lindl.	PE	DL
11	Crepis Rattlesnake-Root	<i>Prenanthes crepidinea</i> Michx.	PE	DL
12	Southern Mountain-Mint	<i>Pycnanthemum pycnanthemoides</i> (Leavenw.) Fern.	PE	DL
13	Prairie Violet	<i>Viola pedatifida</i> G. Don	PE	DL
14	Robust Smartweed	<i>Polygonum robustius</i> (Small) Fern.	PT	DL
15	Lesser Bladderwort	<i>Utricularia minor</i> L.	PT	DL
16	Coville's Rush	<i>Juncus gymnocarpus</i> Coville	PR	DL
17	Carolina Tassel-Rue	<i>Trautvetteria caroliniensis</i> (Walt.) Vail	PR	DL
18	Purple Bladderwort	<i>Utricularia purpurea</i> Walt.	PR	DL
19	Firm Aster	<i>Aster firmus</i> Nees	TU	DL
20	Broad Waterweed (Male Plants)	<i>Elodea canadensis</i> L. C. Rich.	TU	DL
21	Bicknell's Panic-Grass	<i>Panicum bicknellii</i> Nash (Fernald, M. L., Gray's Manual of Botany, 1970, Eighth edition)	TU	DL
22	Long-Ligule Panic-Grass	<i>Panicum longiligulatum</i> Nash (Morris Arboretum, 1992, Pennsylvania Flora Database)	TU	DL
23	Fernald's Panic-Grass	<i>Panicum recognitum</i> Fern. (Morris Arboretum, 1992, Pennsylvania Flora Database)	TU	DL
24	Chaffy Whitlow Wort	<i>Paronychia fastigiata</i> (Raf.) Fern. var. <i>paleacea</i> Fern.	TU	DL
25	Illinois Pondweed	<i>Potamogeton illinoensis</i> Morong	TU	DL
26	Pursh's Goldenrod	<i>Solidago purshii</i> Porter	TU	DL
27	Eastern Water-Flaxseed	<i>Spirodela punctata</i> (Mey.) C. H. Thompson	TU	DL
28	Ohio Spiderwort	<i>Tradescantia ohioensis</i> Raf.	TU	DL
29	Pennell's Speedwell	<i>Veronica catenata</i> Pennell	TU	DL
30	Northern Bog Violet	<i>Viola nephrophylla</i> Greene	TU	DL
31	Horned Pondweed	<i>Zanichellia palustris</i> L.	TU	DL

# Summary

<u>Classification</u>	<u>Currently in Ch. 45</u>	<u>No. Species to be Added to Ch. 45</u> (currently unlisted)	<u>No. of Species to be Transferred INTO this Classification from another Classification</u>	<u>No. of Species to be Transferred OUT of this Classification into another Classification</u>	<u>No. of Species to be Delisted</u> (remove from Ch 45)	<u>Final Number of Species in Chapter 45</u> (after proposed rulemaking)	<u>Net Change</u> (current vs proposed)
Extirpated	106	0	1	1	4	102	-4
Endangered	228	7	6	1	9	231	3
Threatened	78	2	2	1	2	79	1
Vulnerable	3	0	0	0	0	3	0
Rare	41	0	2	1	3	39	-2
Tentatively Undetermined	148	0	0	7	13	128	-20
Special Populations	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>604</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>31</b>	<b>582</b>	<b>-22</b>

# Summary

Summary	No. Species
# Add (currently <i>unlisted</i> )	9
# Upgrade (currently listed)	9
# Downgrade (currently listed)	2
# Delist (currently listed)	31
<b><u>Total changes</u></b>	<b><u>51</u></b>
<i>Net Species</i>	-22
Total Add or Upgrade:	18
Total DL or downgrade:	33

Name Changes	
Classification	No. Species
Extirpated	16
Endangered	31
Threatened	8
Vulnerable	1
Rare	6
Tentatively Undetermined	20
Special Populations	0
<b>TOTAL</b>	<b>82</b>

Adding / Reclassifying	
PE	13
PT	4
PR	2
PX	1
<b>TOTAL</b>	<b>20</b>
Removing	
PE	9
PT	2
PR	3
PX	4
TU	13
<b>TOTAL</b>	<b>31</b>



# Timeline



- Tentative Goal: Publication in *PA Bulletin* this Winter (*Early 2015*)
- Next Steps/Currently Working On:
  - Finalizing regulatory Package *Now*
  - Public webinar for outreach to stakeholders, industry and conservation groups— *November - January*
  - Publication for *PA Bulletin*—*January - February*