

# Prairie State Conservation Coalition

## March 2- 3, 2017



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# Lake Forest Open Lands

- Maintains over 800 acres of open space
  - Land management team comprised of three full-time restoration ecologists
  - Manages 6 nature preserves
    - Will be adding two additional preserves in late 2017
  - Manages over 450 acres on conservation easements
- Educates school kids, summer camps, and provides internship opportunities
  - Provides environmental education to over 3,200 students each year
- Engages the community by offering public programs
  - Public and corporate volunteer opportunities
  - Hosts special events throughout the year

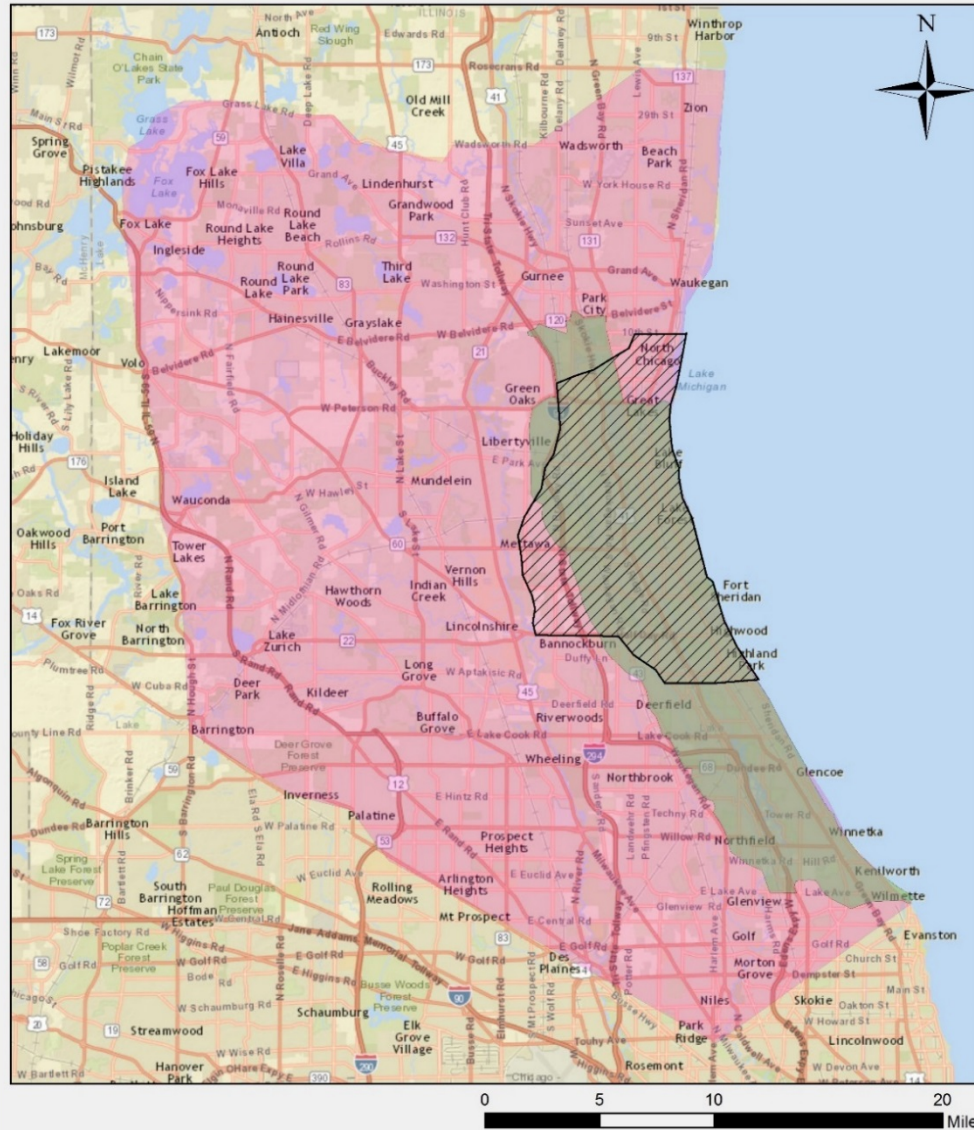





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# Lake Forest



# Lake Forest Open Lands Association Strategic Footprint



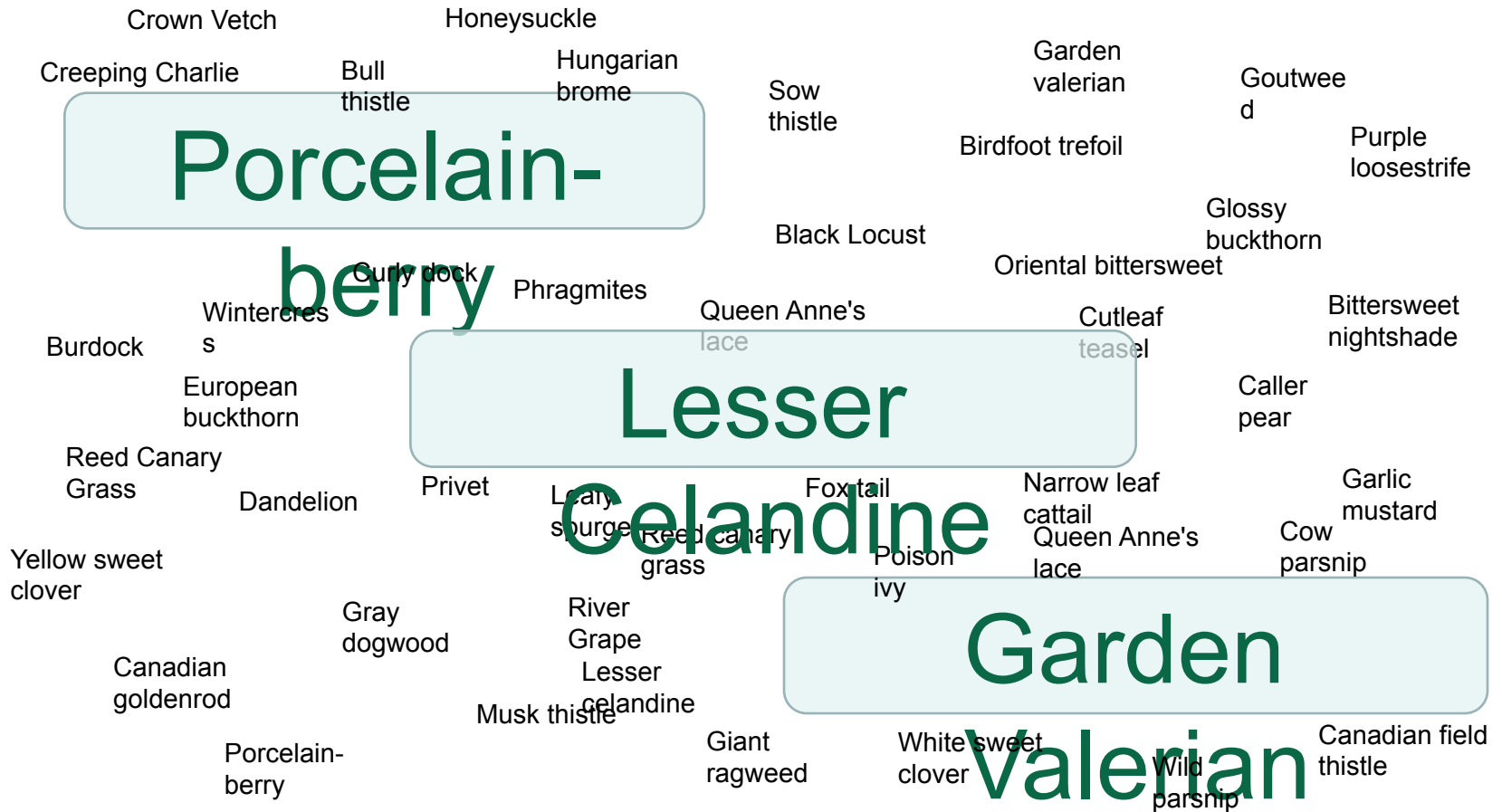
-  LFOLA Conservation Community Strategic Focus Area
-  Lake Michigan South Strategic Habitat Conservation Area
-  LFOLA Programmatic Reach

LAKE FOREST <b>OPEN</b> LANDS	DICK FAMILY MAPPING RESOURCE CENTER
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# The Loathsome losers

Crown Vetch  
Creeping Charlie  
Tall goldenrod  
Wintercress  
Burdock  
Reed canary grass  
Yellow sweet clover  
Canadian goldenrod  
Porcelain-berry  
Honeysuckle  
Bull thistle  
Curly dock  
European buckthorn  
Dandelion  
Gray dogwood  
Musk thistle  
Hungarian brome  
Black Locust  
Phragmites  
Queen Anne's lace  
Leafy spurge  
River Grape  
Lesser celandine  
Sow thistle  
Fox tail  
Poison ivy  
White sweet clover  
Garden valerian  
Bird foot trefoil  
Oriental bittersweet  
Cut leaf teasel  
Narrow leaf cattail  
Queen Anne's lace  
Giant ragweed  
Wild parsnip  
Goutweed  
Purple loosestrife  
Glossy buckthorn  
Bittersweet nightshade  
Caloriepear  
Garlic mustard  
Cow parsnip  
Canadian field thistle

# The Loathsome losers





# Porcelain-berry



# Porcelain-berry

- Porcelain-berry occurs from Wisconsin and Iowa to New Hampshire & south to Georgia
- Highly invasive
  - Cultivated as a bedding and landscape plant
    - Still widely used in the landscape trade
- Deciduous, woody, perennial vine that resembles grape and climbs by non-adhesive tendrils at the base of each leaf; grows to 15-20 ft.
- Birds are attracted to the fruits and will easily spread it
- Shade tolerant



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# How Do I Know If I have Porcelain-Berry?

Porcelain-Berry



Grape Vine















# Management Options

- Treatment measures often must be repeated during the growing season and for several years afterwards to fully eradicate the plant.
- **Mechanical**
  - Hand pulling of vines in the fall or spring will prevent flower buds from forming the following season
  - If the plants are pulled while in fruit, fruits should be bagged
  - For vines too large to pull out, cut them near the ground and treat cut stems with systemic herbicide
  - Repeat cutting of regrowth as needed
- Chemical control in combination with manual and mechanical methods is effective and likely to be necessary for large infestations.



# Management Options

- **Chemical**

The systemic herbicides triclopyr (e.g., Garlon® 3A and Garlon 4) and glyphosate (e.g., Roundup® and Rodeo®) have been successfully used

- ***Foliar application***

The most effective control has been achieved using triclopyr formulations. From summer to fall, apply a water-based solution of 2.5% Garlon 3A (triclopyr amine) to foliage

- ***Basal bark application***

Apply a mixture of 20-30% Garlon® 4 (triclopyr ester) mixed with commercially available basal oil to 2 - 3 ft. long sections of stem near the base of the vines.

# Lesser Celandine



# Lesser Celandine

- Invasive in at least seventeen states in the northeastern U.S. from Wisconsin to New Hampshire, south to Tennessee
- Lesser celandine is so aggressive that many native plants just can't compete
  - Much of our native wildlife don't recognize lesser celandine as food
- Lesser celandine emerges so early that it has already established itself by the time native spring ephemerals are just starting to emerge
- Lesser celandine is low-growing (no more than 11" tall) divides and spreads to form a thick mats of pretty yellow flowers
  - Glossy, dark green leaves and bright yellow, sunshine-y flowers
  - Abundant tubers and bulbils











# Management Options

- **Mechanical**

Small infestations may be pulled by hand or dug up with a trowel. Be sure to remove all bulbils and tubers.

Physical removal causes soil disturbance, which can lead to further infestation by lesser celandine and other invasives.

- Keep this in mind when dealing with high-quality natural areas.



# Management Options

- **Chemical**

- The window of opportunity for the chemical control of lesser celandine is very small. Herbicide should be applied in late winter to early spring (March through May) in order to minimize impacts to native wildflowers
  - 50 degrees or higher
- Celandine in lawns is difficult to eradicate; it's resistant to most lawn herbicides.
- Be careful to apply the herbicide to lesser celandine only, and be aware of the site's proximity to breeding amphibians. Use a wetland-approved concentration of glyphosate, which is a systemic herbicide that will kill the roots

# Garden valerian





# Garden valerian

- Invasive in Illinois, Wisconsin, Minnesota and all of New England
- Garden valerian (*Valeriana officinalis*) is a perennial non-native invasive plant of sunny wetlands and roadsides
- The vigorous growth habit and the self-sowing seeds enable this species to displace native vegetation.
- Valerian has been used as a medicinal herb since at least the time of ancient Greece and Rome
- It is in flower from June to August, and the seeds ripen from July to September
  - The flowers are hermaphrodite (have both male and female organs)
  - Suitable for: light (sandy), medium (loamy), and heavy (clay) soils





# Management Options

- **Mechanical**
  - Pull or mow before flowering.
- **Chemical**
  - It can be sometimes controlled using any of several readily available general use herbicides such as glyphosate or triclopyr.



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# What about BOB?



# Bur oak Blight

- To date BOB, or Bur Oak Blight, is known to occur from northeastern Kansas and eastern Nebraska to central Minnesota and southwestern Wisconsin, and across most of Iowa and in Lake Forest Illinois
- It is not clear if this new species of *Tubakia* is a recent arrival to this region or if it is due to a shift in climate
  - ✓ BOB occurs primarily on naturally established trees, and especially on mature trees on upland sites that appear to be remnants of savannah forests
  - ✓ Bur oaks in dense forests and on bottomland sites are less seriously affected.





# Bur oak Blight

- **Symptoms**

- Leaf symptoms typically first appear in late July or August. Infected leaves develop purple-brown lesions along the midvein
- Large, wedge-shaped areas of chlorosis and necrosis develop on the leaf blade, and major leaf mortality may occur
- A unique feature of BOB is that some of the killed leaves remain on the tree during the winter (healthy bur oak trees shed all of their leaves in the fall)
- If BOB-infected leaves drop or are blown off, their petioles typically remain attached to the tree





# Management

- Over time, severely affected trees may die. Tree death is usually associated with severe blight over many years
  - Damage caused by secondary invaders such as the two-lined chestnut borer and *Armillaria* root rot
- Because the fungus overwinters on infected leaf petioles that remain on the tree, removing fallen leaves is not an effective management tool
- **Chemical**
  - In preliminary studies, injections of the fungicide propiconazole (Alamo formulation) in late May or early June (prior to leaf symptoms) have reduced symptom development in the fall and the following year.
  - With further study, fungicide treatments may have value in managing high-value landscape trees.

# Questions?



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