



Potentially Invasive Trees

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Potentially Invasive Trees



The list of trees grown in Ontario has at least 224 species including hybrids, subspecies, horticultural species and fruit crop species.

The list does not distinguish between the very large number of horticultural forms.

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About half of the tree species in Ontario are native, one quarter are non-native and one quarter are cultivated for some purpose (also non-native)

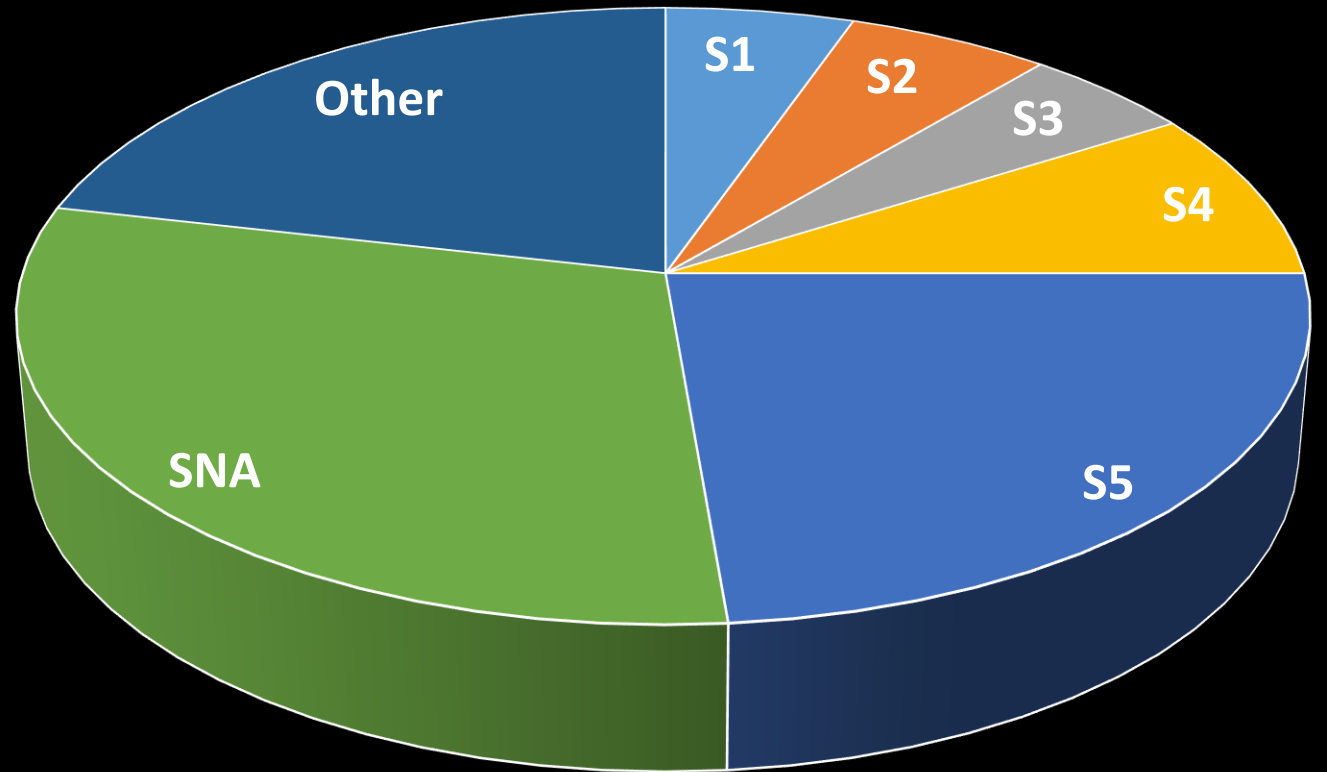
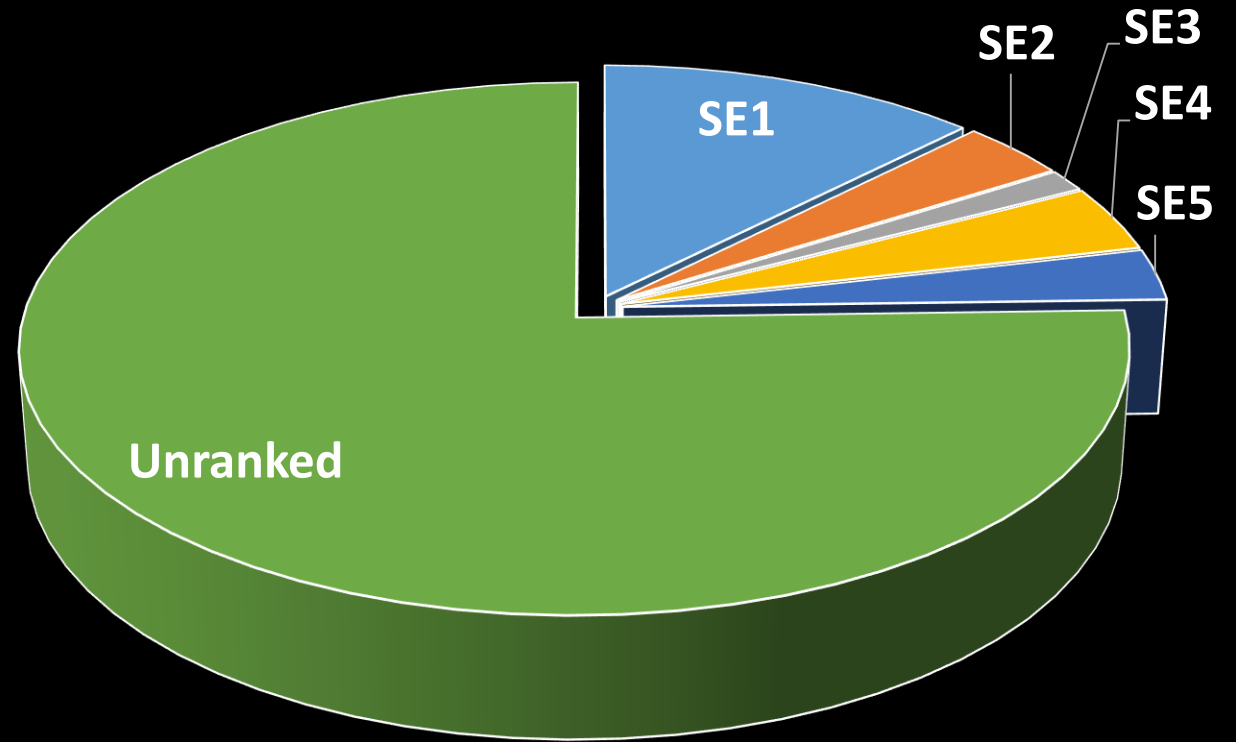


Chart of tree species in Ontario by rarity ranking

Potentially Invasive Trees



Norway Maple (*Acer platanoides*)



Abundance of non-native tree species

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Invasive must be **non-native**

Some native species demonstrate invasive characteristics

Manitoba Maple (*Acer negundo*) collected
Humber Valley, 1877 by John McCoun

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Winged Euonymus (*Euonymus alata*), Mount Nemo
DBH = 17.0 cm

Considerations:

1 - Proximity

- Already in Ontario?
- Growing nearby (i.e. adjoining provinces or states)?
- Potential for accidental introduction from distant sites?



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Considerations:

2 - Population

Is source population large, moderate, few individuals?

Clammy Locust (*Robinia viscosa*), Speyside

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Amur Maple (*Acer ginnala*) Rattray Marsh

Considerations:

3 - Attributes

- Suitable for sites in Ontario
- Relative seed production
- Seed dispersal methods



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Considerations:

4 - Time

- Has species been present long enough to allow assessment? (enough generation times)

Foliage of Little-leaf Linden (*Tilia cordata*) understory covering ground, Glen Williams

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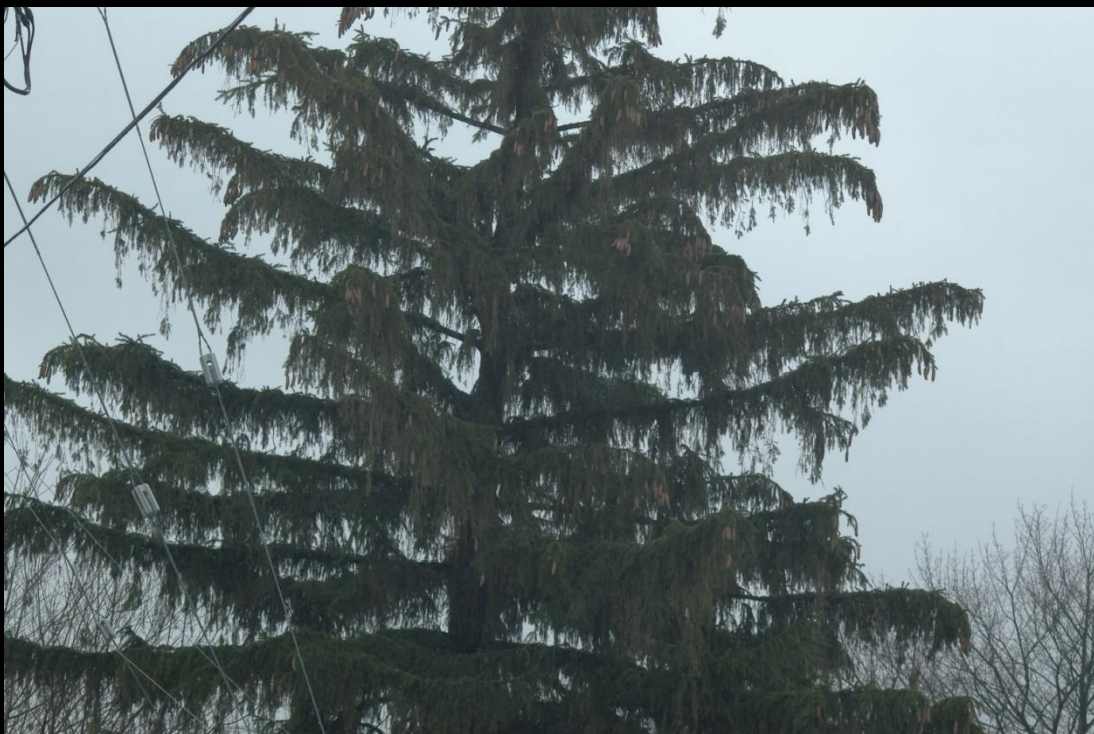


Considerations:

5 - Proven Problem

Adequate time has passed and frequency of occurrence has demonstrated that the species qualifies as an invasive

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Species that have not spread

Norway Spruce (*Picea abies*)

London Plane-tree (*Platanus acerifolia*)

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European Alder (*Alnus glutinosa*)
Scots Pine (*Pinus sylvestris*)
White Poplar (*Populus alba*)



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Glossy Buckthorn (*Frangula alnus*)
Russian Olive (*Elaeagnus angustifolia*)
Sour Red Cherry (*Prunus cerasus*)

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Pyrus calleryana Callery Pear - is now planted widely along streets, commercial sites, parks, *etc.*

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Common Pear (*Pyrus communis*) cultivated, abandoned orchards, and growing wild

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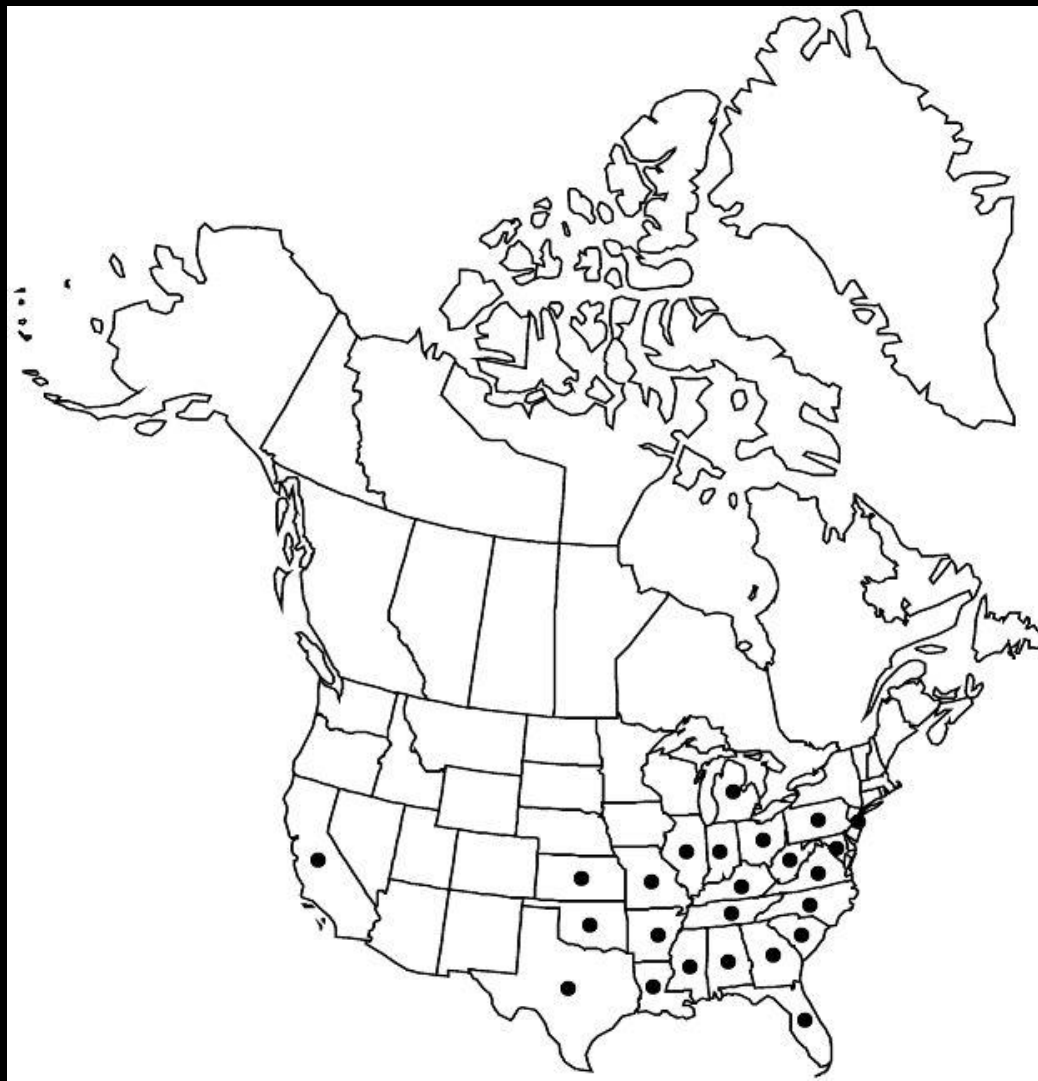


Wild distribution of Wild Pear (*Pyrus communis*)

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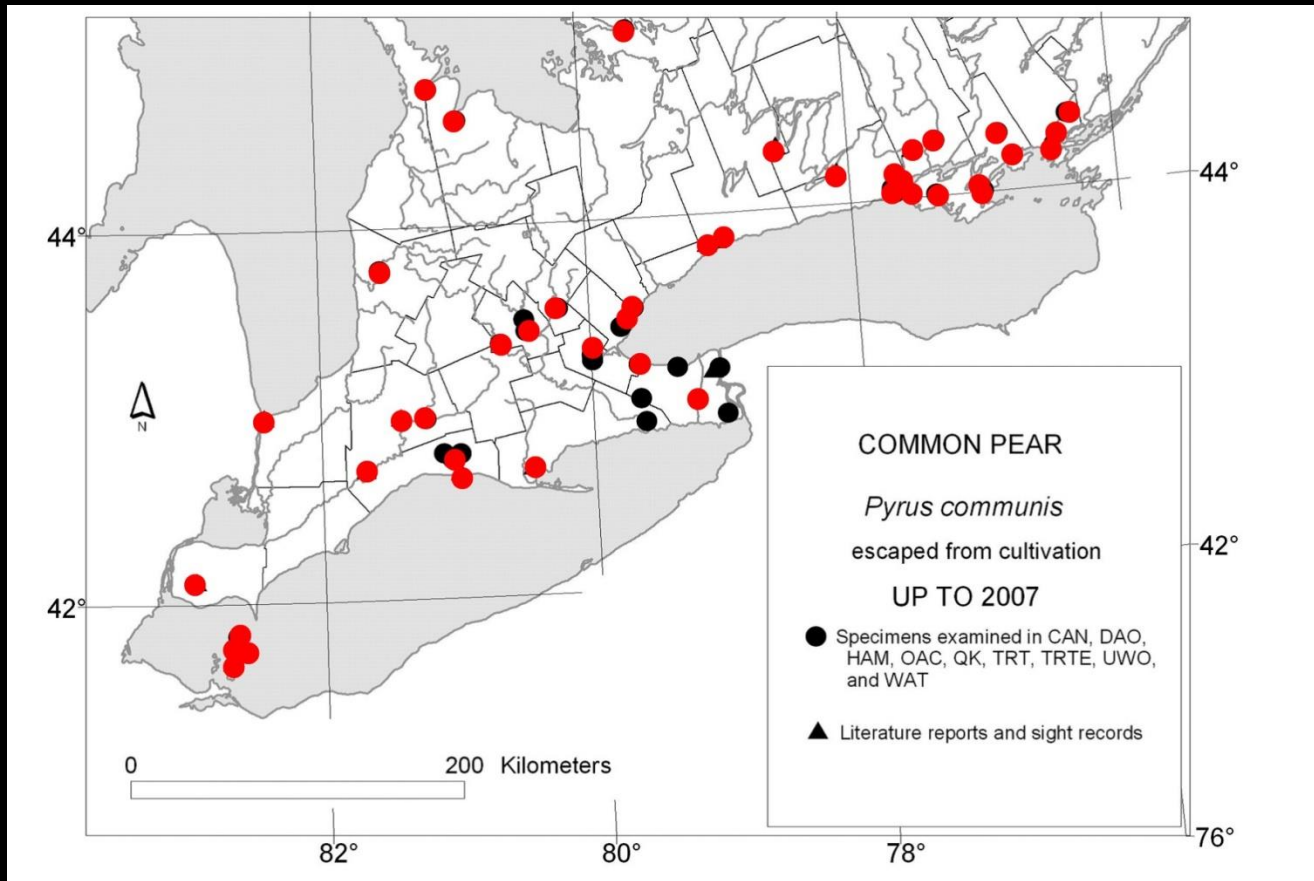


Wild distribution of Wild Pear (*Pyrus communis*)



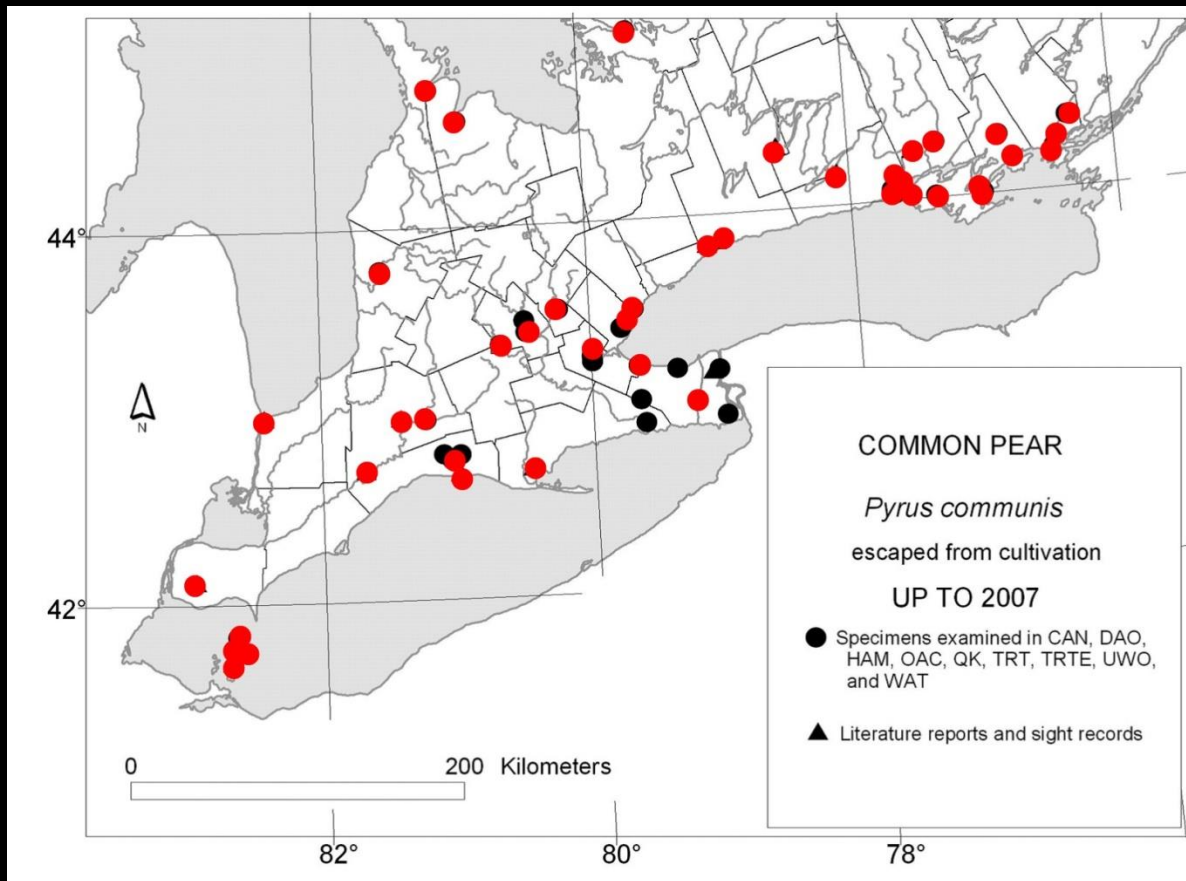
Wild distribution of Callery Pear (*Pyrus calleryana*)

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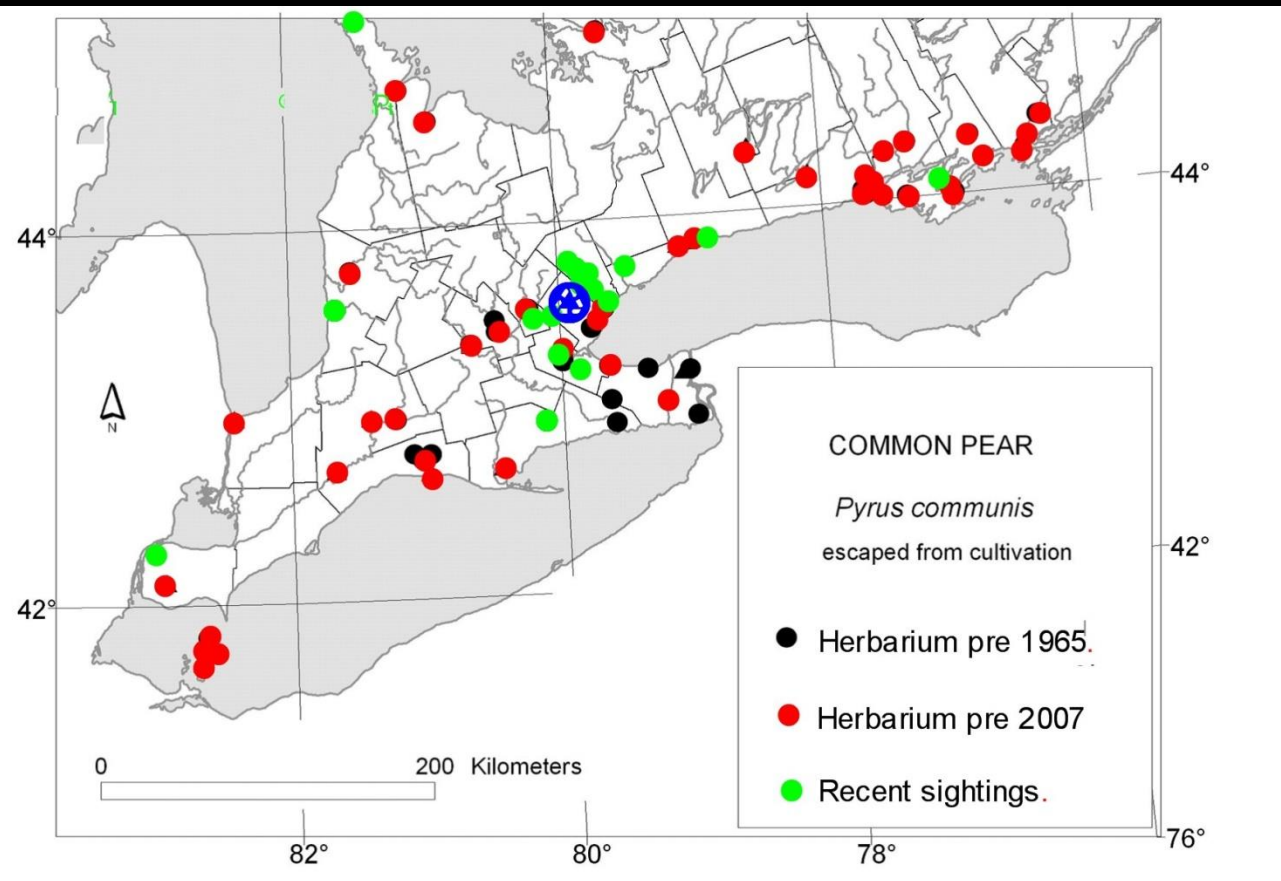


Distribution of Wild Pear in Ontario (after Catling)

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Distribution of Wild Pear in Ontario (after Catling)



Distribution of Wild Pear in Ontario (recent additions)

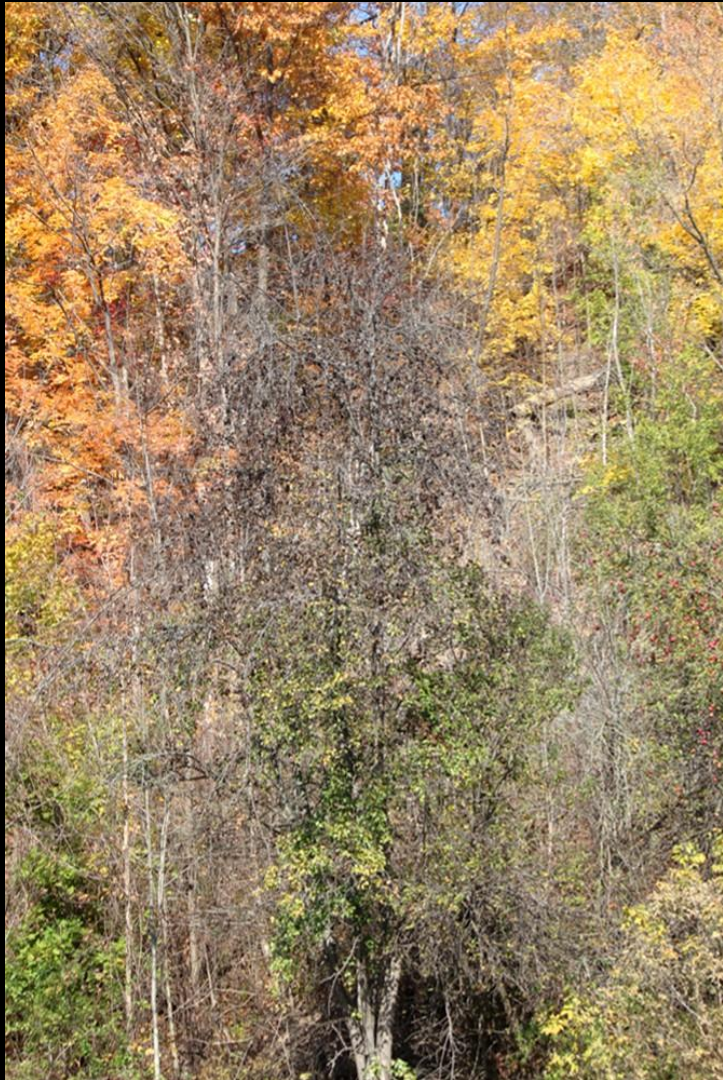
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Distribution of Wild Pear in Halton

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Wild Pear and Callery Pear are sources of disease infection and insects for commercial crops



Fire Blight (*Erwinia amylovora*)



Sooty Blotch (*Phyllachora pomigena*)



Pear Rust (*Gymnosporangium clavariiforme*)

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Escaped Callery Pear in Maryland, Maine,
and Ohio

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Callery Pear clones are self-incompatible therefore they should **not** produce viable fruit



Callery Pear planted at Acton Arena, 2016

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Callery Pear clones are self-incompatible therefore they should not produce viable fruit

BUT

They can cross with other strains including sprouts from the rootstocks upon which they are grafted

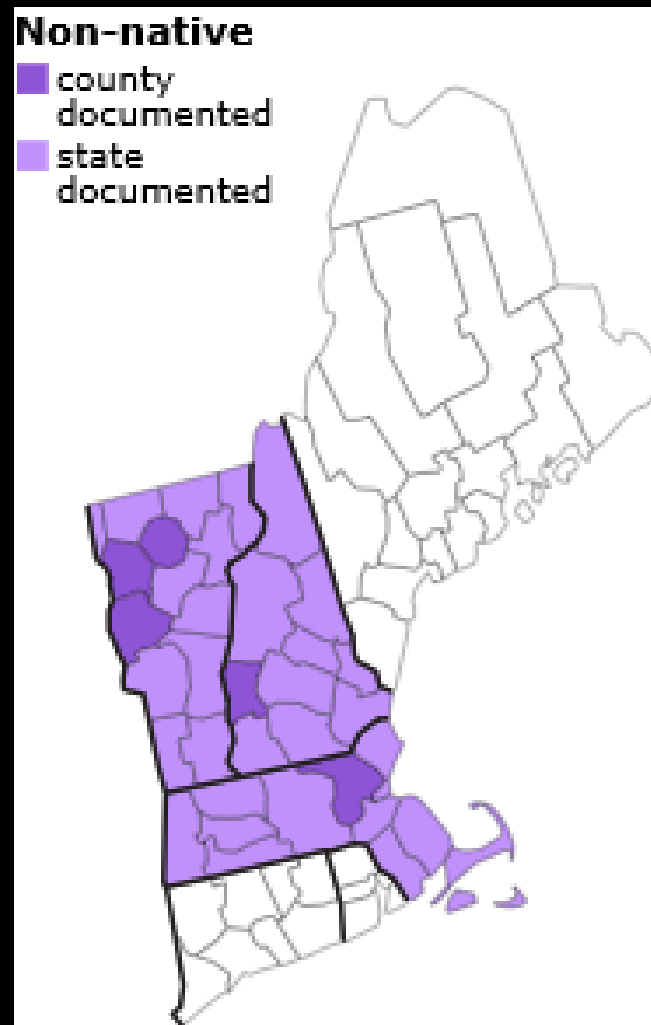
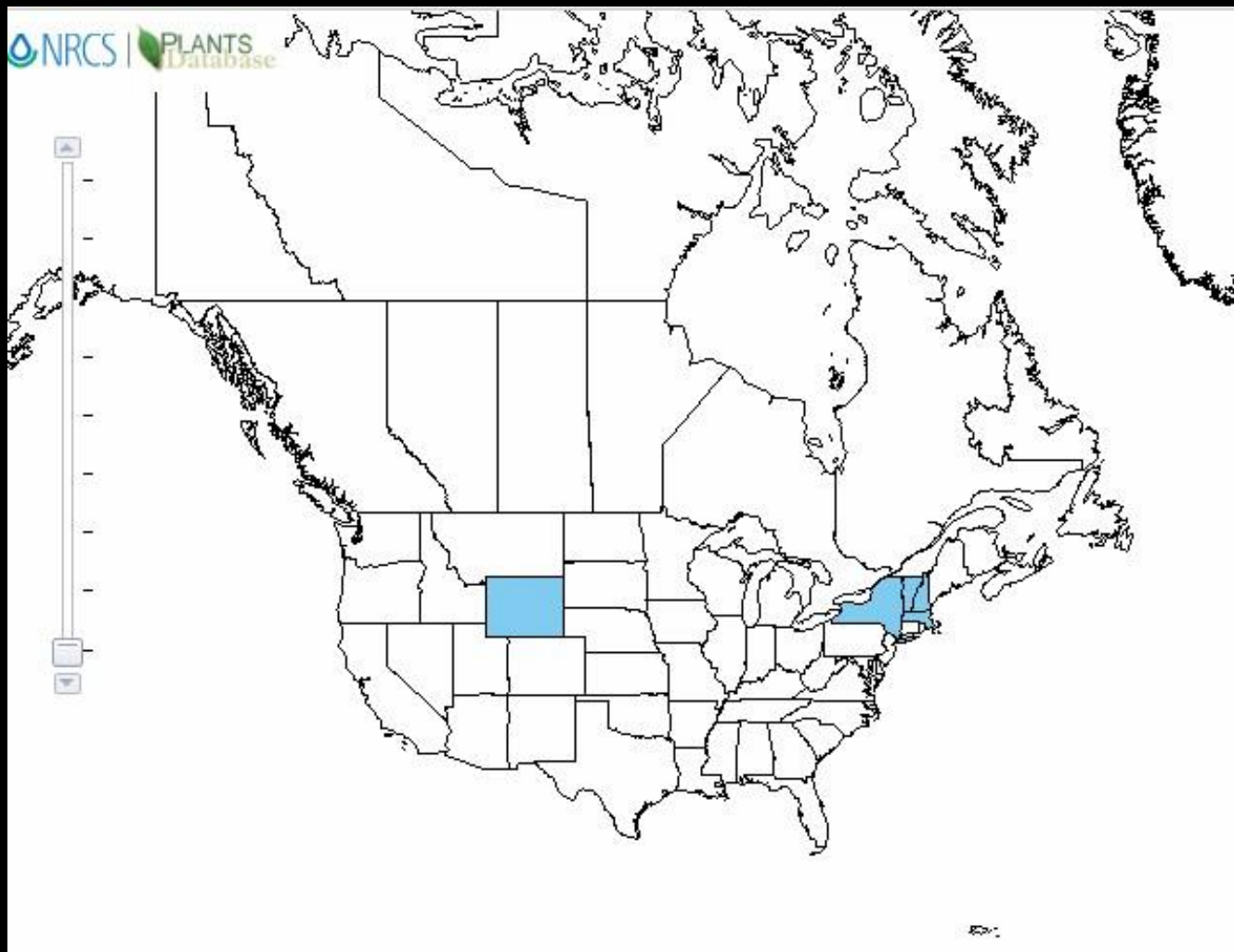
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Syringa reticulata Japanese Tree Lilac at Acton 2016

Originally cultivated about 1876 but only recently has it been planted widely

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Locations of wild-growing *Syringa reticulata* in North America
(also found in Minnesota, 2009)

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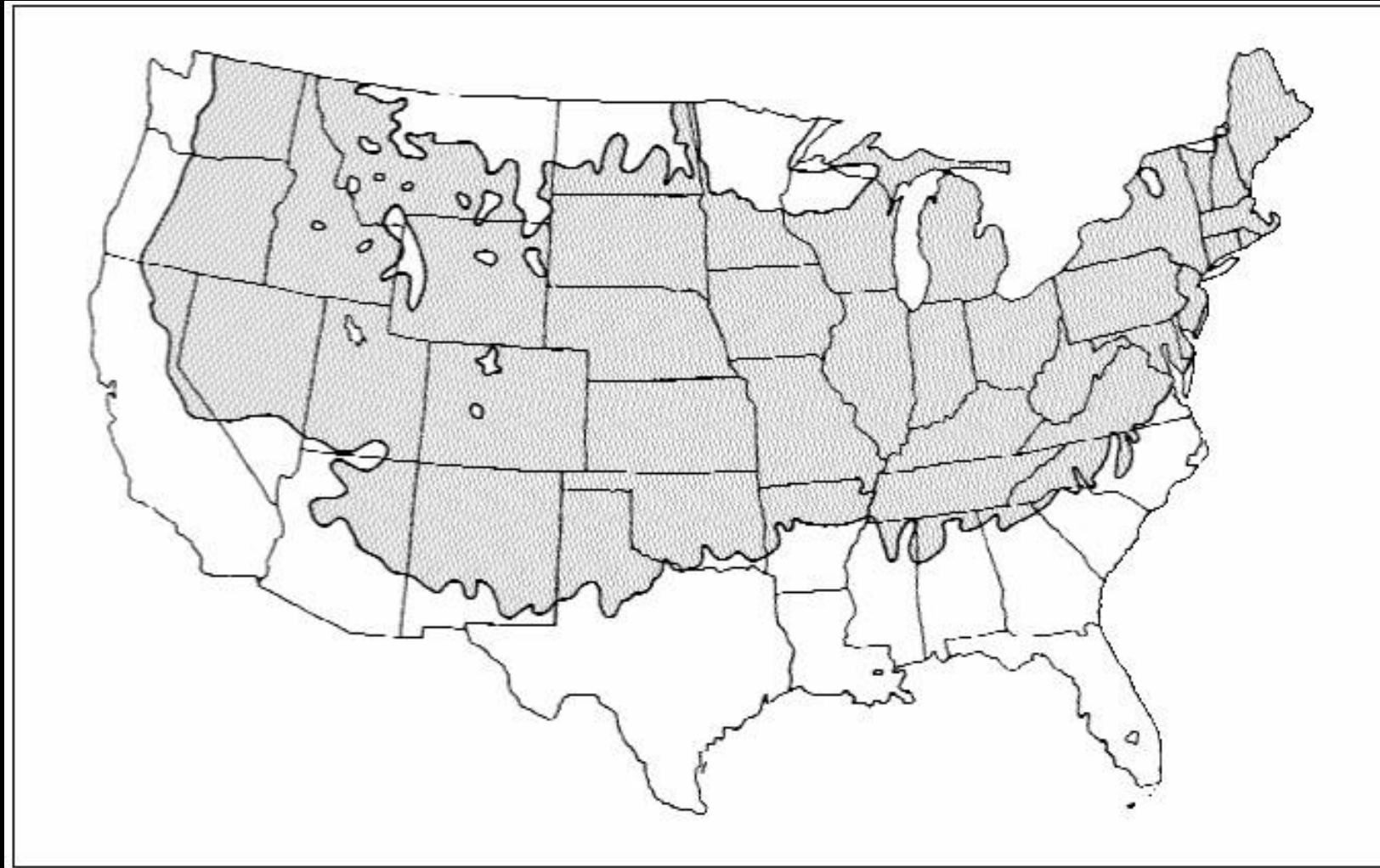


Syringa reticulata growing at Rattray Marsh

Age and origin unknown

DBH = 9 cm

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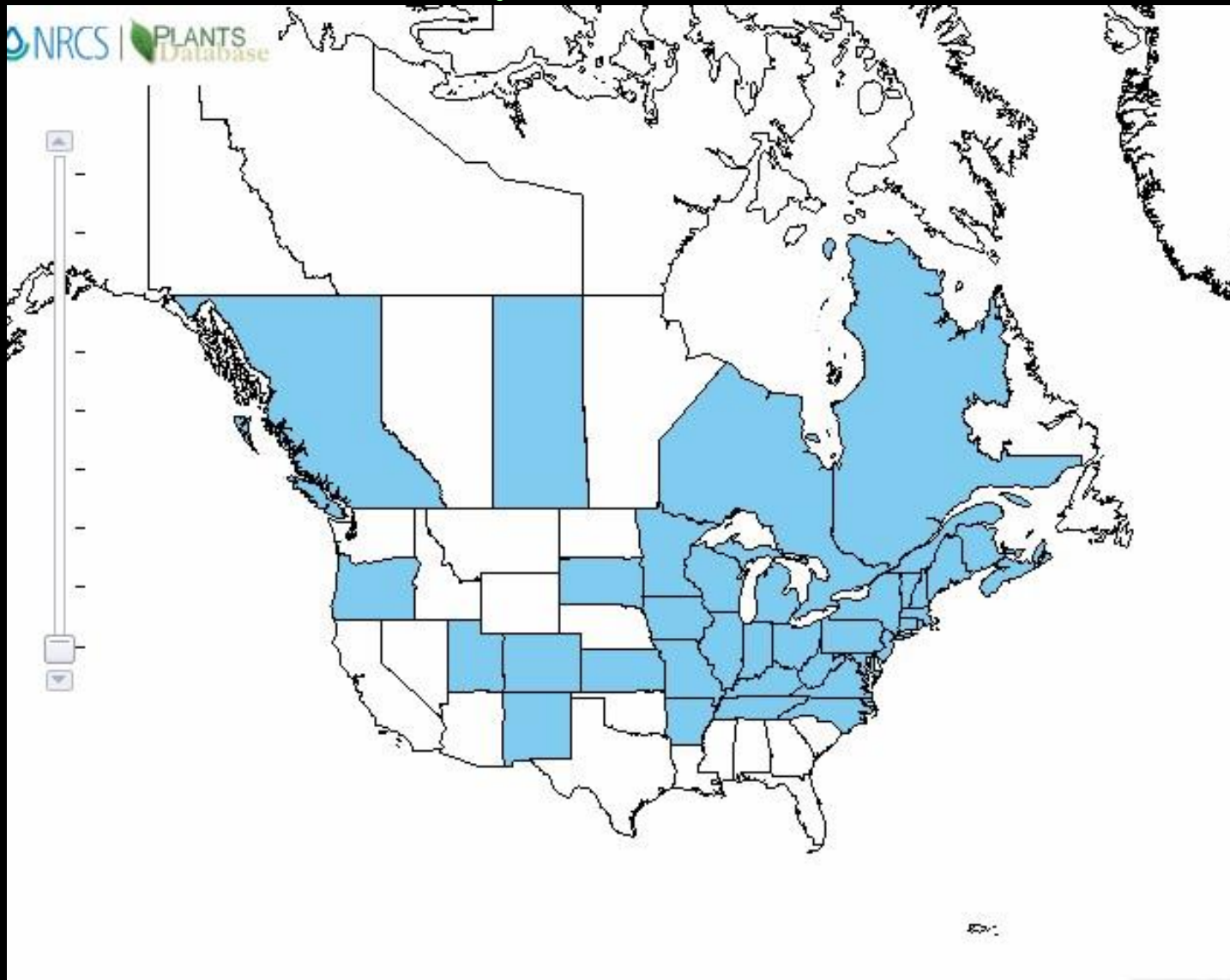
Potentially suitable growing area for *Syringa reticulata* in USA

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Common Lilac - Forks-of-Credit Provincial Park, June 2016

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Distribution of wild *Syringa vulgaris* in North America



Thank You

Black Locust (*Robinia pseudo-acacia*) grove, Kelso, 2016