



*Cabomba caroliniana*



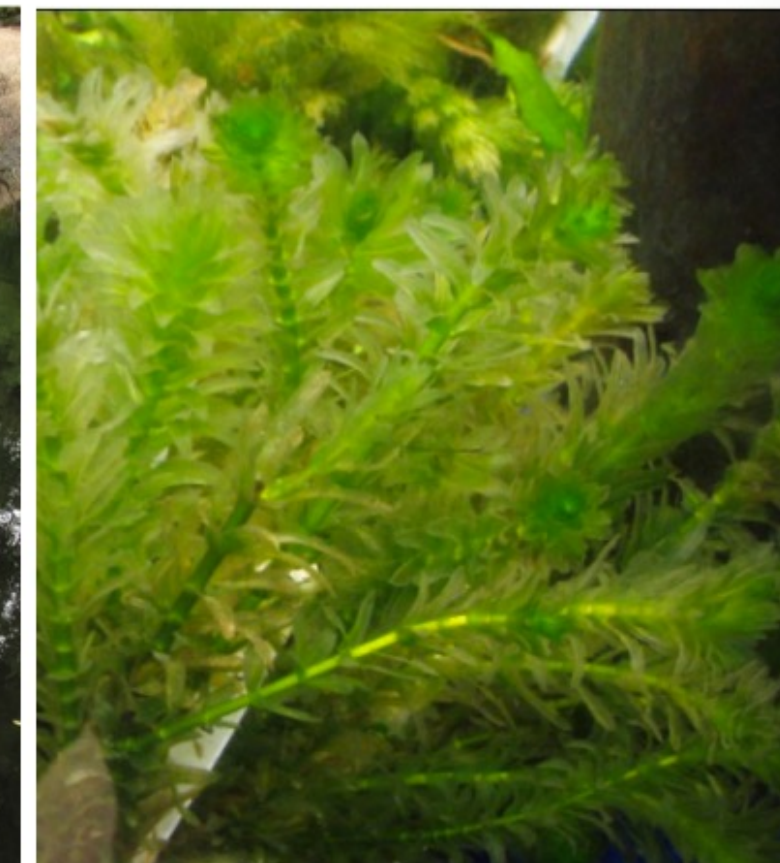
*Nymphoides peltata*



*Myriophyllum aquaticum*



*Eichornia crassipes*



*Egeria densa*

# Labelling and the Phasing out of Invasive Plant Species for sale in Canada

## Prevention is key



Canadian Coalition for Invasive Plant Regulation



## How do respond to the INVASIVE SPECIES CONUNDRUM?

- **“Why are invasive plants for sale?”** A question often asked on the MGOI Facebook social media platform.
- Based on a proposal to regulate invasive species in the horticultural trade, a diverse group of concerned folks gathered together and formed **The Canadian Coalition for Invasive Plant Regulation (CCIPR)**.
- **This is our story** and our request for your help.



58% of the  
invasive plant  
species in  
Canada are  
deliberate  
introductions.



What do you mean  
these are invasive?



# Invasive Plants

## What's the problem?

- Invasive Alien Plant Species (IAPS) cause harm to the environment, the economy and human health.
- Control of these species costs hundreds of millions of dollars across Canada.
- Horticultural trade is the largest pathway for the intentional introduction of IAPS.

Many invasive ornamental plants are spread by gardeners unaware of the impact.



Yellow flag iris (*Iris pseudacorus*)



Honeysuckle (*Lonicera japonica*)



Purple loosestrife (*Lythrum salicaria*)



Tree of Heaven (*Ailanthus altissima*)





**Invasive species show high reproductive fecundity and great capability of spreading**

*Arundo donax* is invasive and prohibited in Canada

By Forest and Kim Starr - Public Domain

## When is a plant classified as invasive?

Negative impacts on agriculture, fisheries and or navigation

- Does it harm food production?

Negative impacts on public health

- Does it harm people - increase disease risks, fire risks or flooding ...?

Negative impacts on the environment

- Does it displace native species and place species at risk? Does it change nutrient cycling? Does it change hydrology?

Biological traits:

- How does it spread? How fast? Can it hybridize with other species?

Distribution and abundance

- How far has it spread or is likely to spread? Is it invasive in nearby regions?

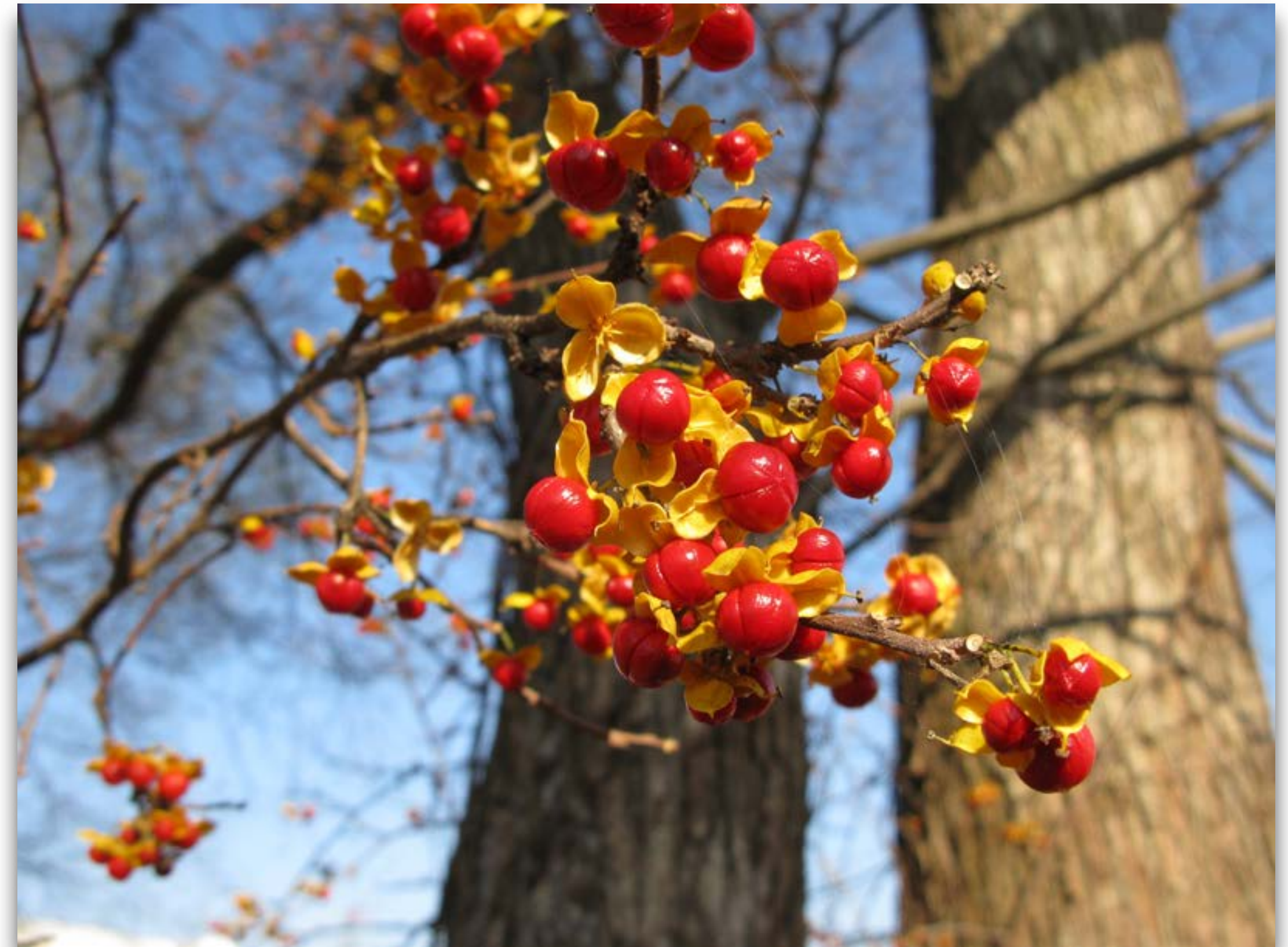
Practical matters

- How difficult is it to control?



# We need to focus on horticulture.

- Impacts are huge.
- The numbers are increasing.
- The issue touches every Canadian.
- Canada lacks a cohesive strategy to manage plants in the horticultural and pet/aquarium trades.



Oriental bittersweet *Celastrus orbiculatus*

Photo: Qwert1234 - Qwert1234&#039;s file, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=7874446>

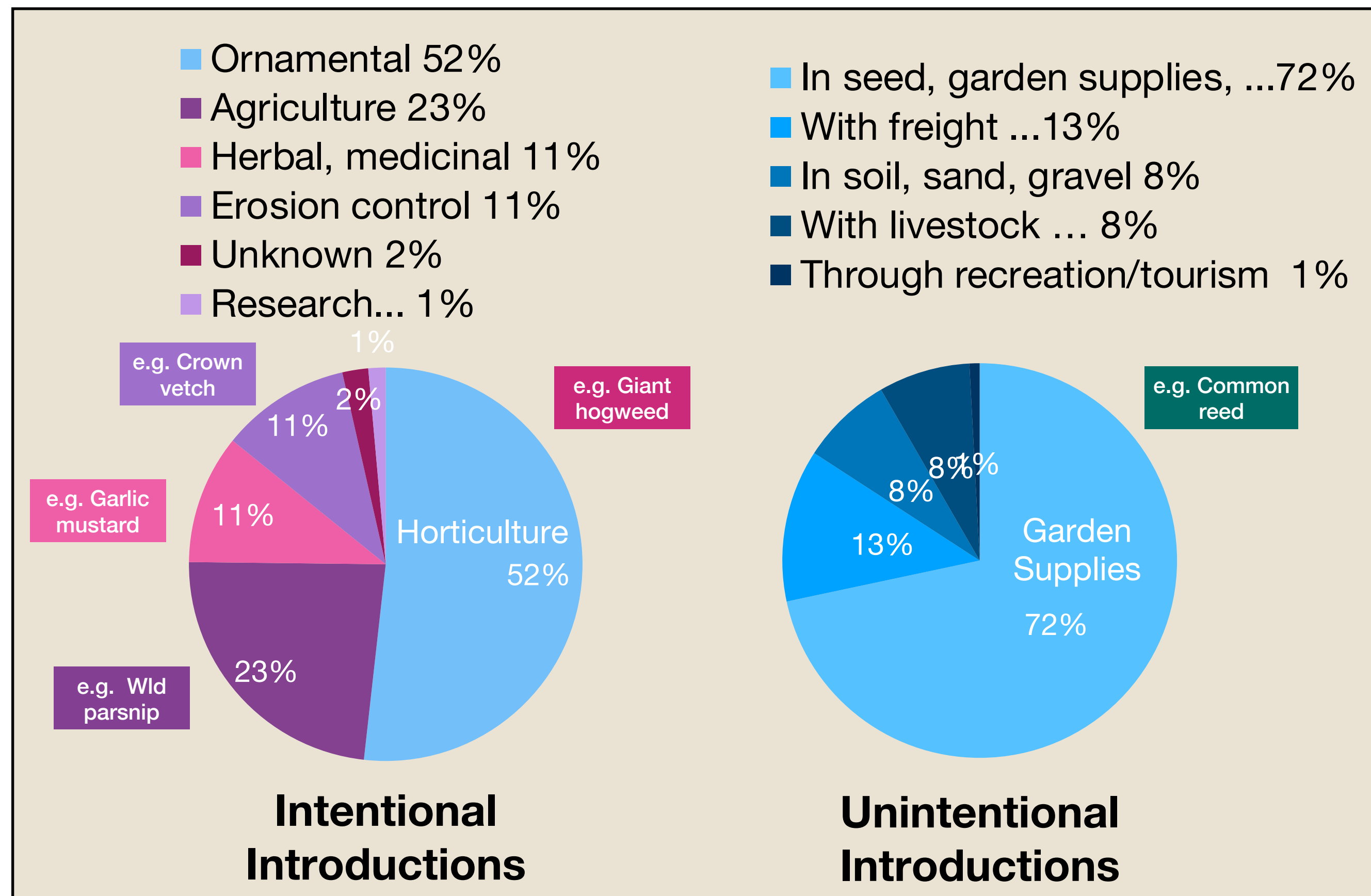


# Horticulture is the largest pathway for introduction of invasive alien plants in Canada

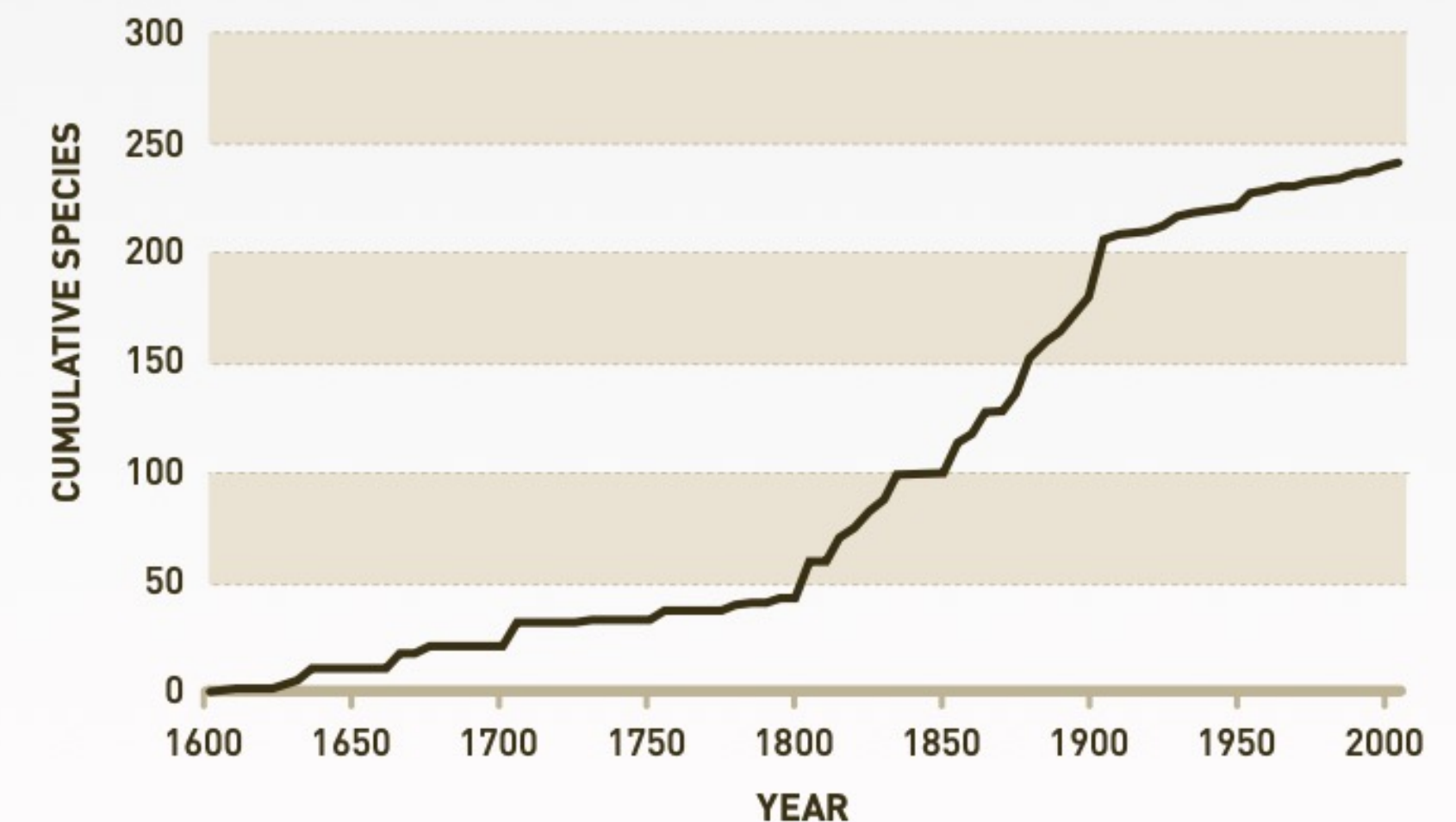
In Canada: 3858 native species; 1229 alien; 486 invasive  
In Ontario: 2054 native species; 1106 alien; 441 invasive



Introduced species that cause harm to the economy, the environment or to human health.



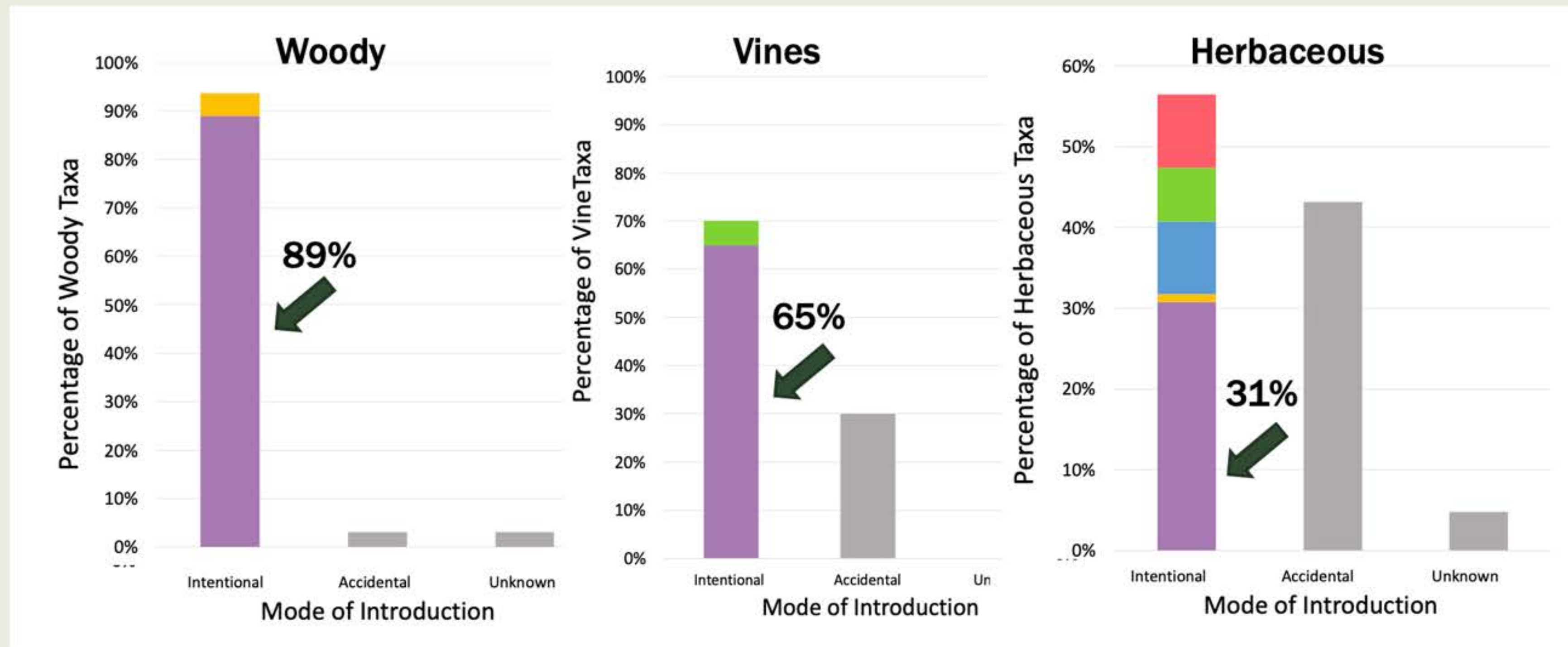
**Figure 4** Cumulative number of invasive alien plant species introduced into Canada from 1600 to 2005, for which dates of introduction can be estimated





# Invasive Species with Ornamental Origin in North America

**Reichard  
(1994): 82%**



**Most woody (93.8%), vines (70.0%), and herbaceous (52.1%) were introduced intentionally**



# Ornamentals

## To be commercially successful

- Ornamental traits: desirable growth habit, attractive foliage, or flower colour
- Ease of propagation
- Rapid growth
- Disease and pest tolerance
- Drought tolerance
- Salinity tolerance
- Hardiness.

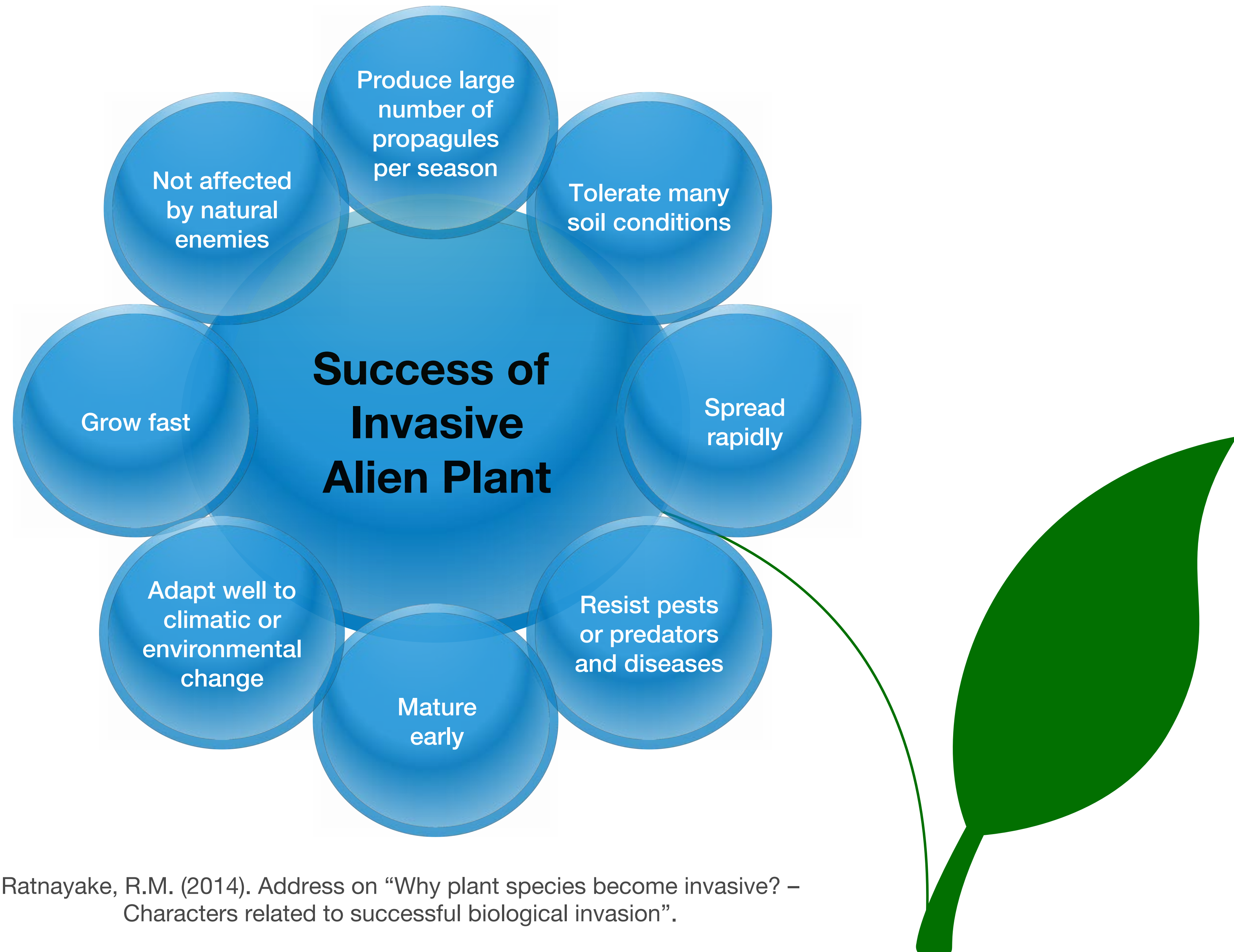
Reduces  
production costs

**Collectively, these characteristics increase the propensity of plants to be invasive**



Adapted from Marian Scrivan





Ratnayake, R.M. (2014). Address on “Why plant species become invasive? – Characters related to successful biological invasion”.

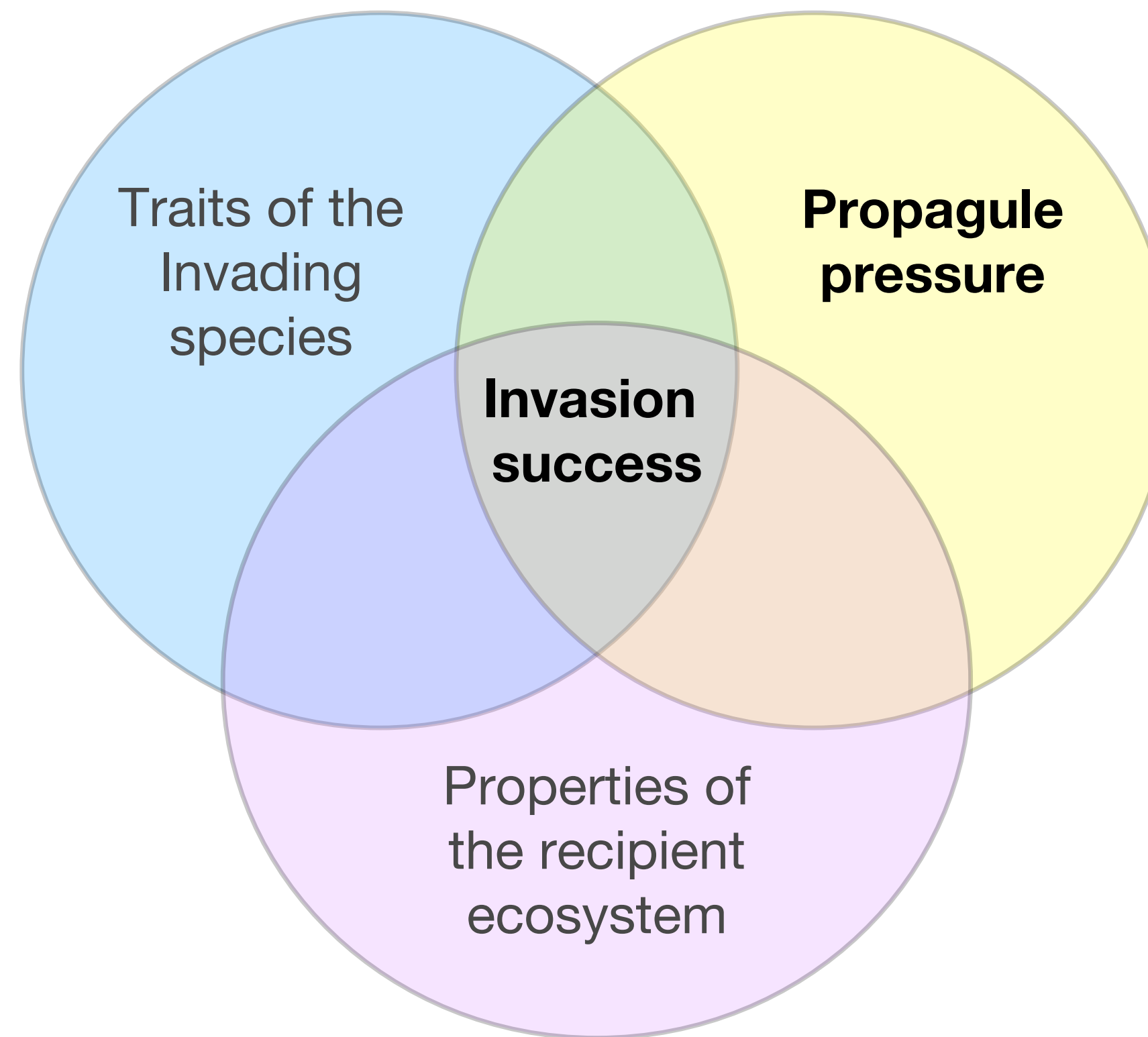


# The more a potentially invasive plant is planted the greater the likelihood of a widespread invasion

**Propagule pressure** is a measure of the number of individuals of a species released into a region.

The higher the number of introduced pots of a particular plant species, the higher the success of the invasion.

The Propagule Hypothesis - CABI



The more plants are sold and shared, the greater the invasion threat.



Periwinkle, *Vinca minor*



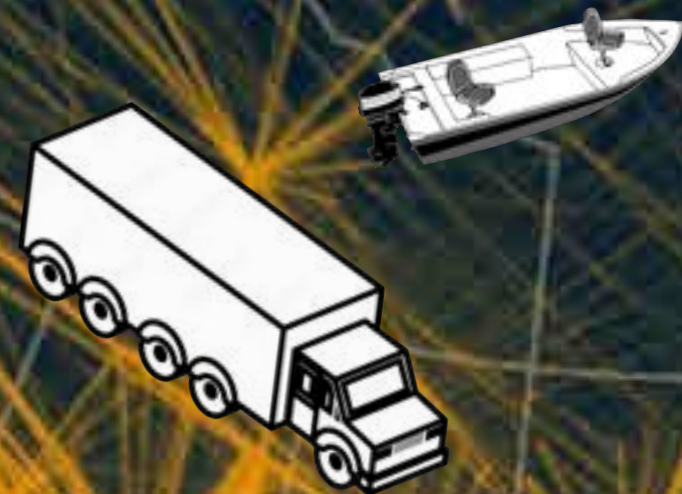
# Invasive plants spread

## Intentional Spread

Plants are imported, sold, planted, propagated, shared and discarded, expanding outwards from wherever people take them.



**Cities are invasion hubs**



## Unintentional Spread

Seeds are spread by wind, water, birds, and mammals; or move along trails and transportation corridors, hitchhiking on vehicles people and pets.



# Public Gardens Reporting

Of the 10 to 20,000 taxa grown, a small proportion are problematic. However, of problematic species - only some recognized on state and provincial lists.

736 species or cultivars as being problematic or escaping cultivation (2021)

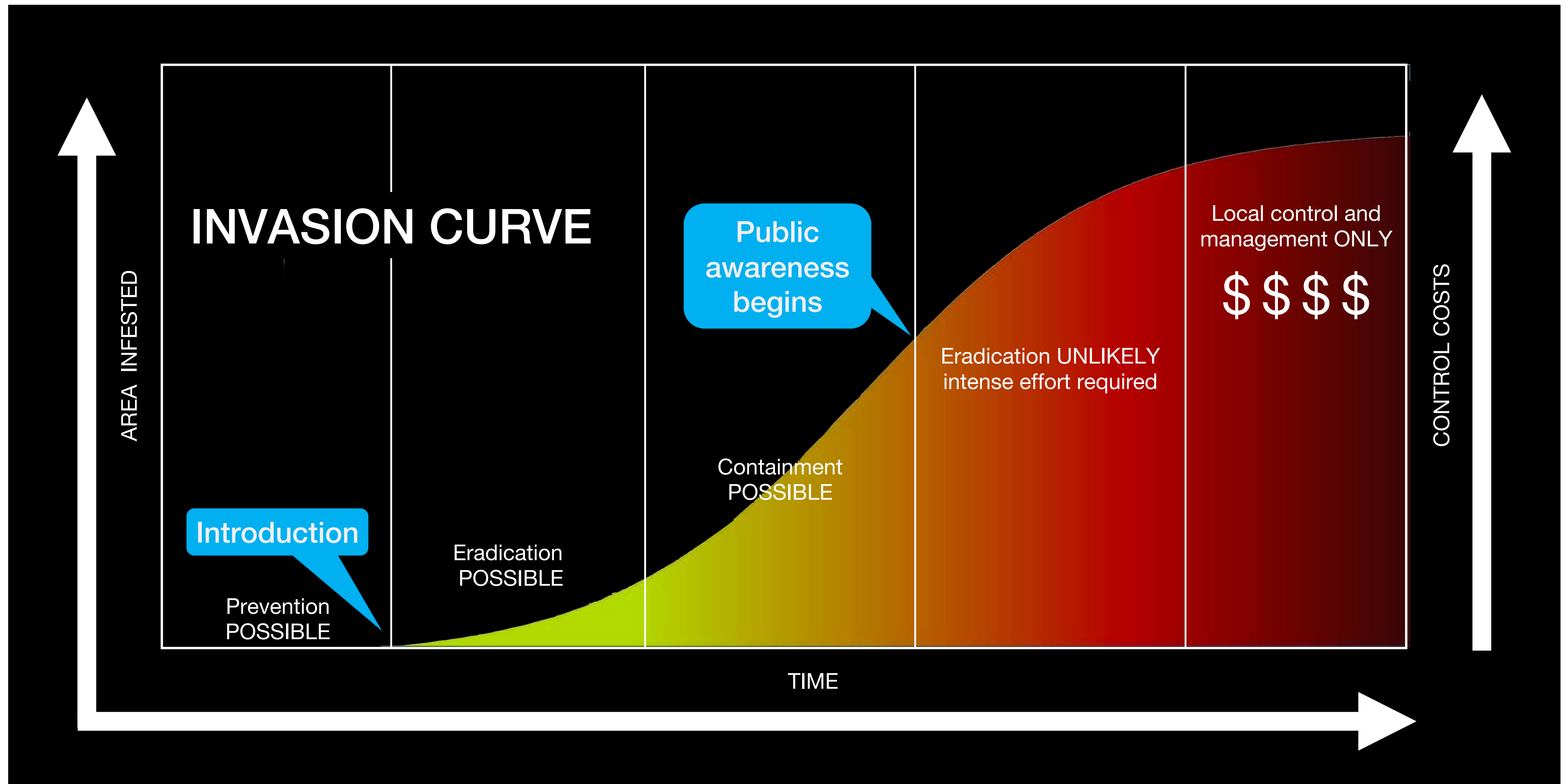
Holden Arboretum, Lady Bird Johnson Wildflower Center, Missouri Botanical Garden, Morton Arboretum, New York Botanical Garden, Royal Botanical Gardens and Chicago Botanic Garden.

From talk - Theresa M. Culley, Kurt Dreisilker, M. Clair Ryan, Jessica A. Schuler, Nadia Cavallin, Roger Gettig, Kayri Havens, Hans Landel, Brittany Shultz. 2021. The Role of Public Gardens as Sentinels of Plant Invasion - [Presentation](#)





# The public notices the problem too late....



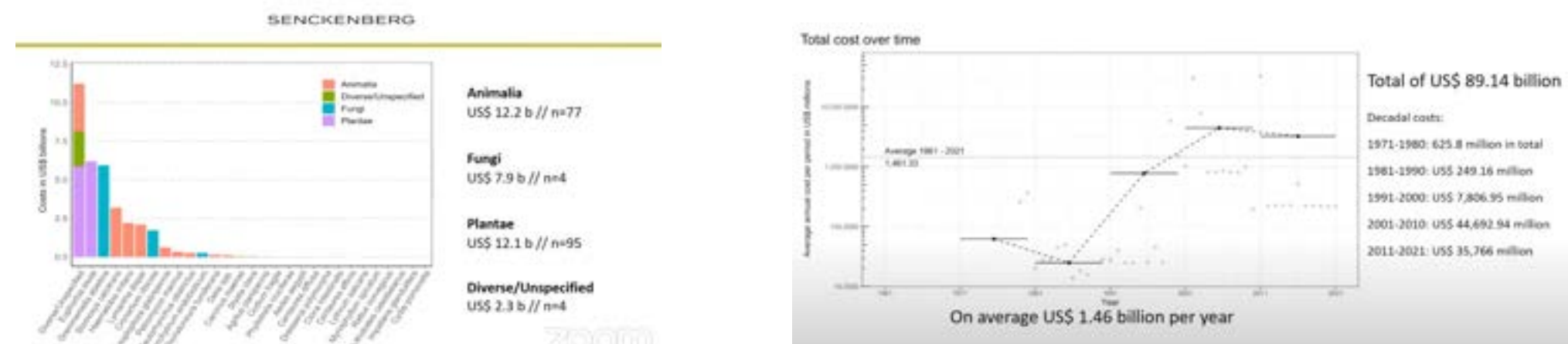
Graph adapted from Generalised Invasion Curve by Hobbs and Humphries (1995).



# Economic costs

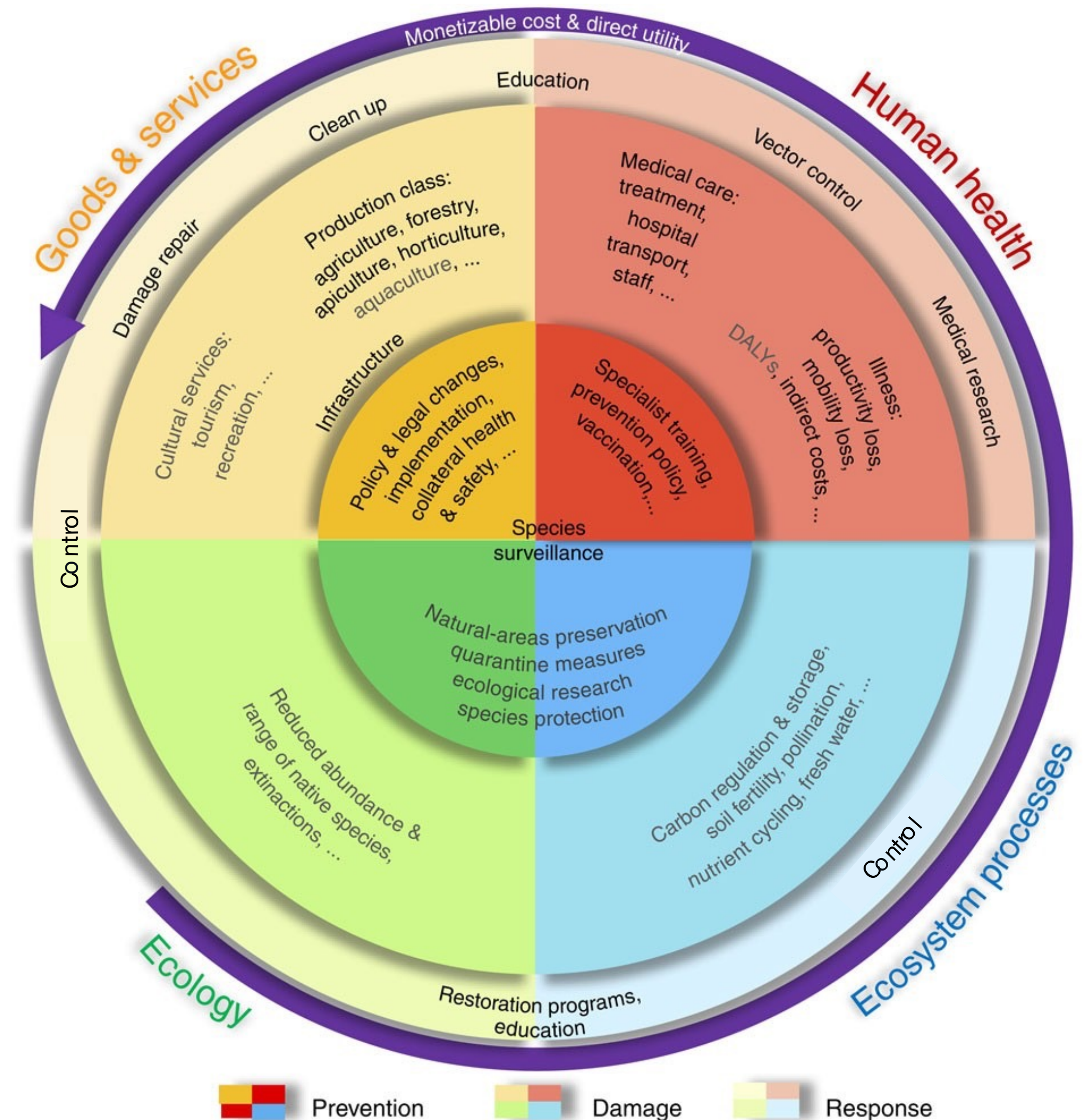
## Massive and under-reported

- Canada invasion costs ~90 /~35 billion for 30 species “**massive, but underestimated**” **\$12 billion for plants**, from 1960-2021 (Phillip Haubrock, 2022, using the InvaCost database).



- Invasive plants in crops and pastures cost an estimated **\$2.2 billion each year.** ([CFIA 2021](#))
- We have not quantified the damages across sectors.
- Costs that fall on municipalities, NGOs, businesses and private landowners are poorly reported.

## Prevention plus Damage plus Management Costs



Market and non-market cost categories

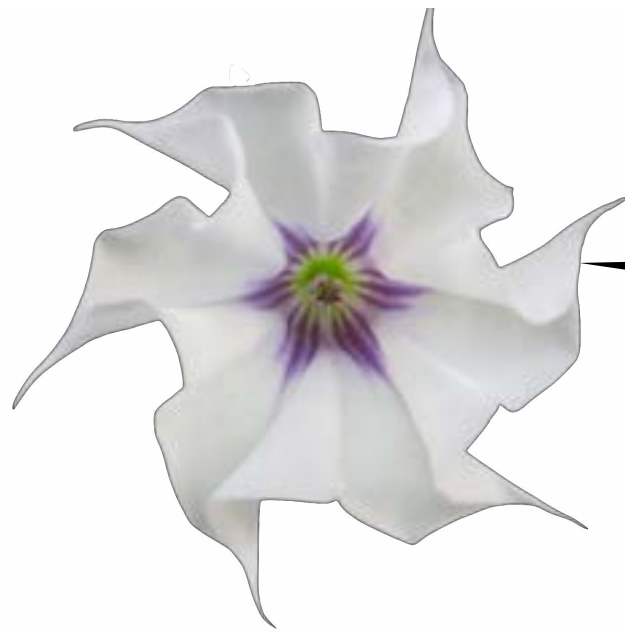
Adapted from Bradshaw, et al. Nature Communications 2016



# Social impacts

## Physical, mental, cultural

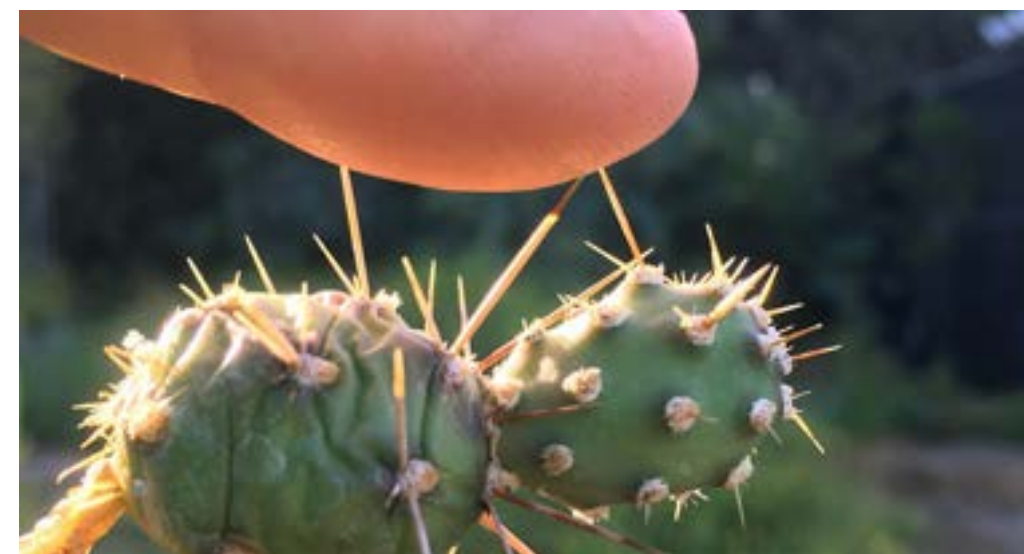
- Cause health problems: poisonings, allergies, dermatitis, injuries, disease, depression.
- Reduce enjoyment of natural areas.
- Interfere with traditional lifestyles.
- Reduce recreational opportunities



Datura - poisonous



Giant hogweed (*Heracleum mantegazzianum*) MabelAmber Pixabay



Spines, prickles and thorns

Contact dermatitis



Photo of giant hogweed burn.  
Photo credit: Bob Kleinberg



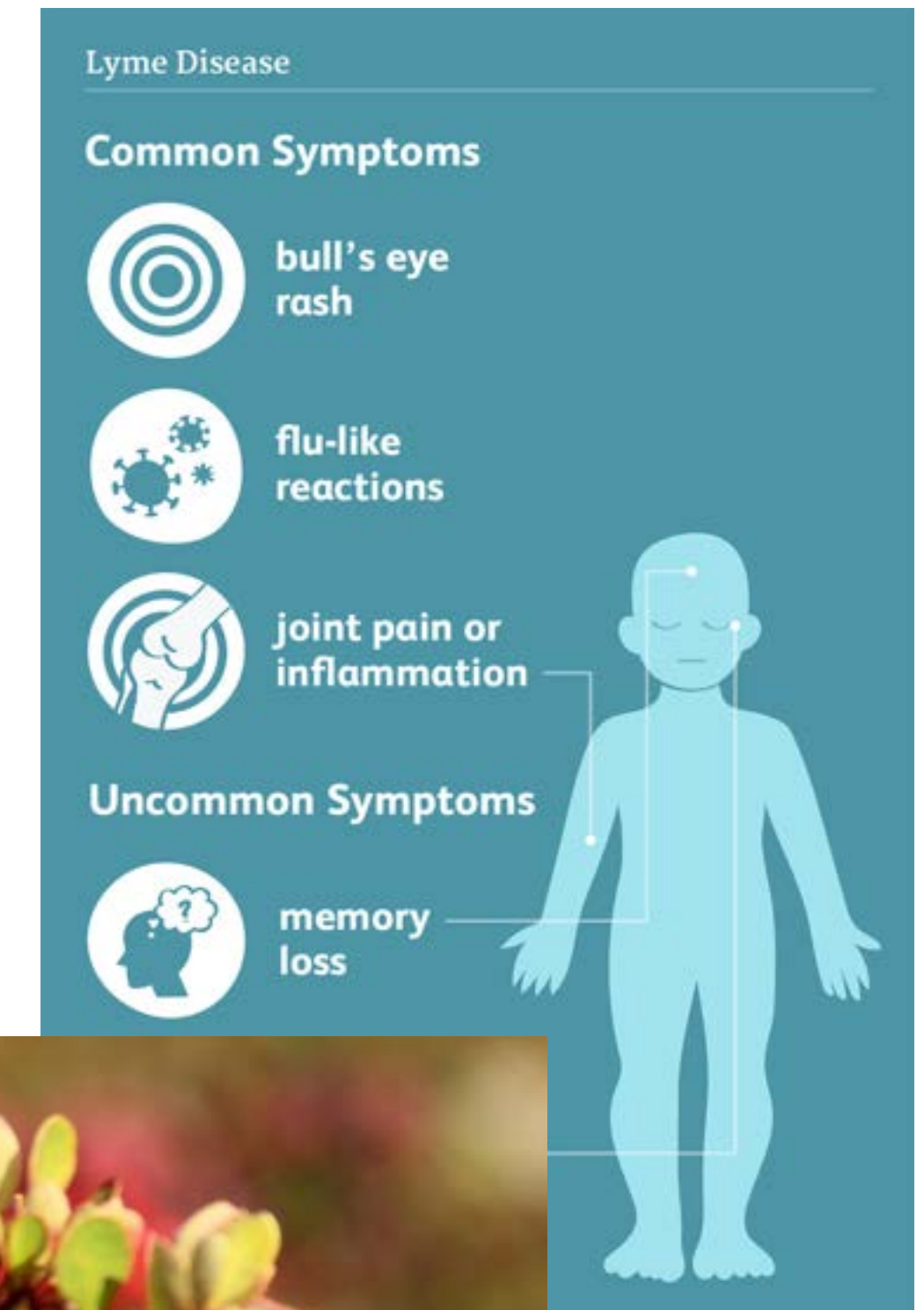
# Health impacts

## Example: Barberry and Lyme disease

- Japanese barberry (*Berberis thunbergii*) harbours ticks and white-footed mice.
- Ticks carrying Lyme disease were 12 times higher in forests invaded by Japanese barberry.
- (Multiflora rose also appears to amplify the prevalence of disease).



Black-legged tick (*Ixodes scapularis*)



Sold as an  
ornamental

Japanese barberry (*Berberis thunbergii*)

Ward, (2017) Long-Term Effects of *Berberis thunbergii* (Ranunculales: Berberidaceae) Management on *Ixodes scapularis* (Acari: Ixodidae) Abundance and *Borrelia burgdorferi* (Spirochaetales: Spirochaetaceae) Prevalence in Connecticut, USA, *Environmental Entomology*, Volume 46(6): 1329–1338.

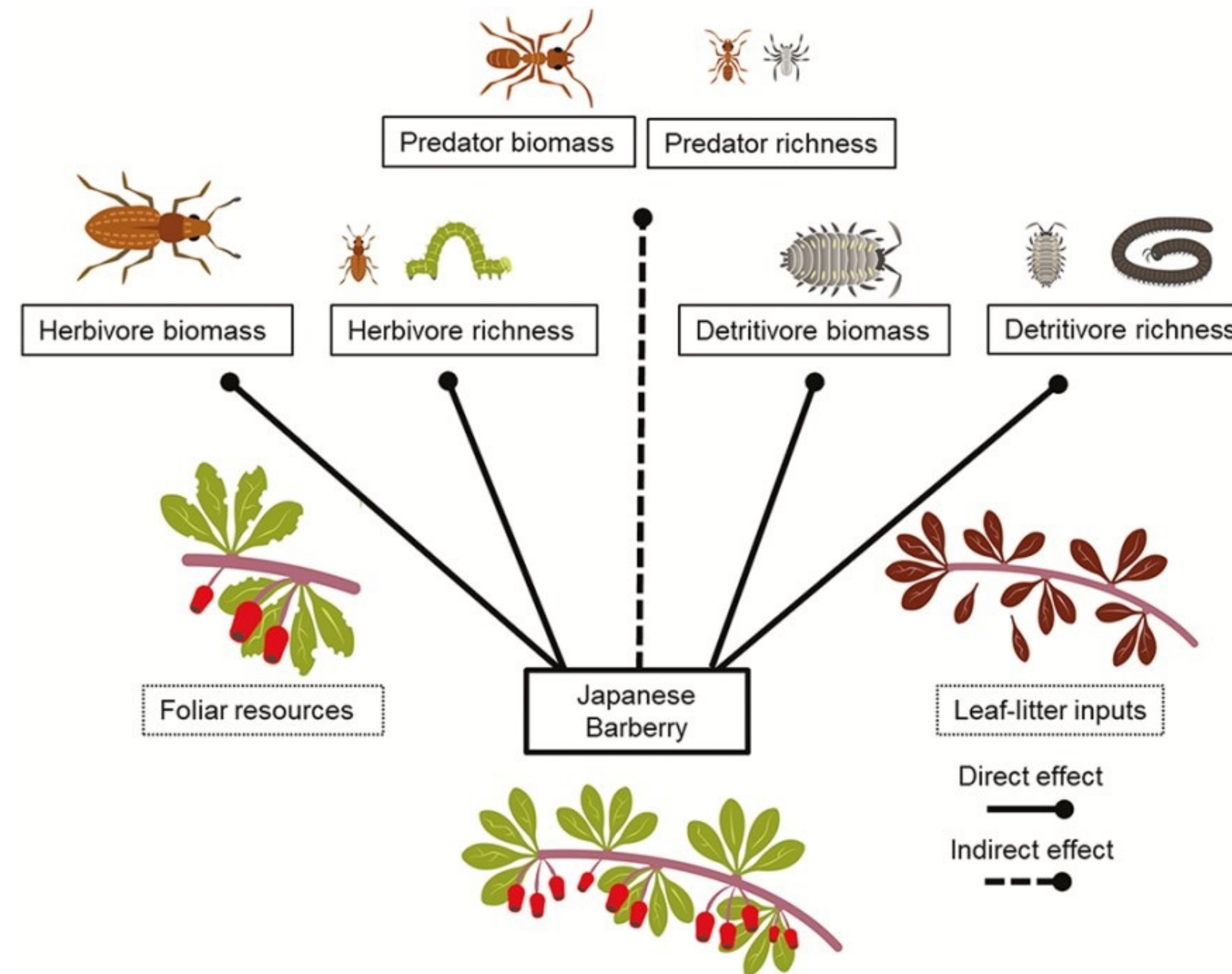
Linske, Megan. (2017). Lyme Disease Ecology: Effects of Habitat and Hosts on the Density and Distribution of *Borrelia burgdorferi*-Infected *Ixodes scapularis*.

Adalsteinsson, S.A., Shriver, W.G., Hojgaard, A. *et al.* Multiflora rose invasion amplifies prevalence of Lyme disease pathogen, but not necessarily Lyme disease risk. *Parasites Vectors* 11, 54 (2018). <https://doi.org/10.1186/s13071-018-2623-0>



# Impacts Cascade Through Local Food Webs

Japanese barberry is associated with an increased abundance of black-legged ticks (*Ixodes scapularis*) that carry Lyme disease.



Japanese barberry  
*Berberis thunbergii*

**Japanese barberry reduces numbers and diversity of arthropod communities in forests where it has spread**

Image: Clark, Robert & Seewagen, Chad. (2019). Invasive Japanese Barberry, *Berberis thunbergii* (Ranunculales: Berberidaceae) Is Associated With Simplified Branch-Dwelling and Leaf-Litter Arthropod Communities in a New York Forest. *Environmental Entomology*.)



# ***Berberis thunbergii* banned in 7 border states and beyond**

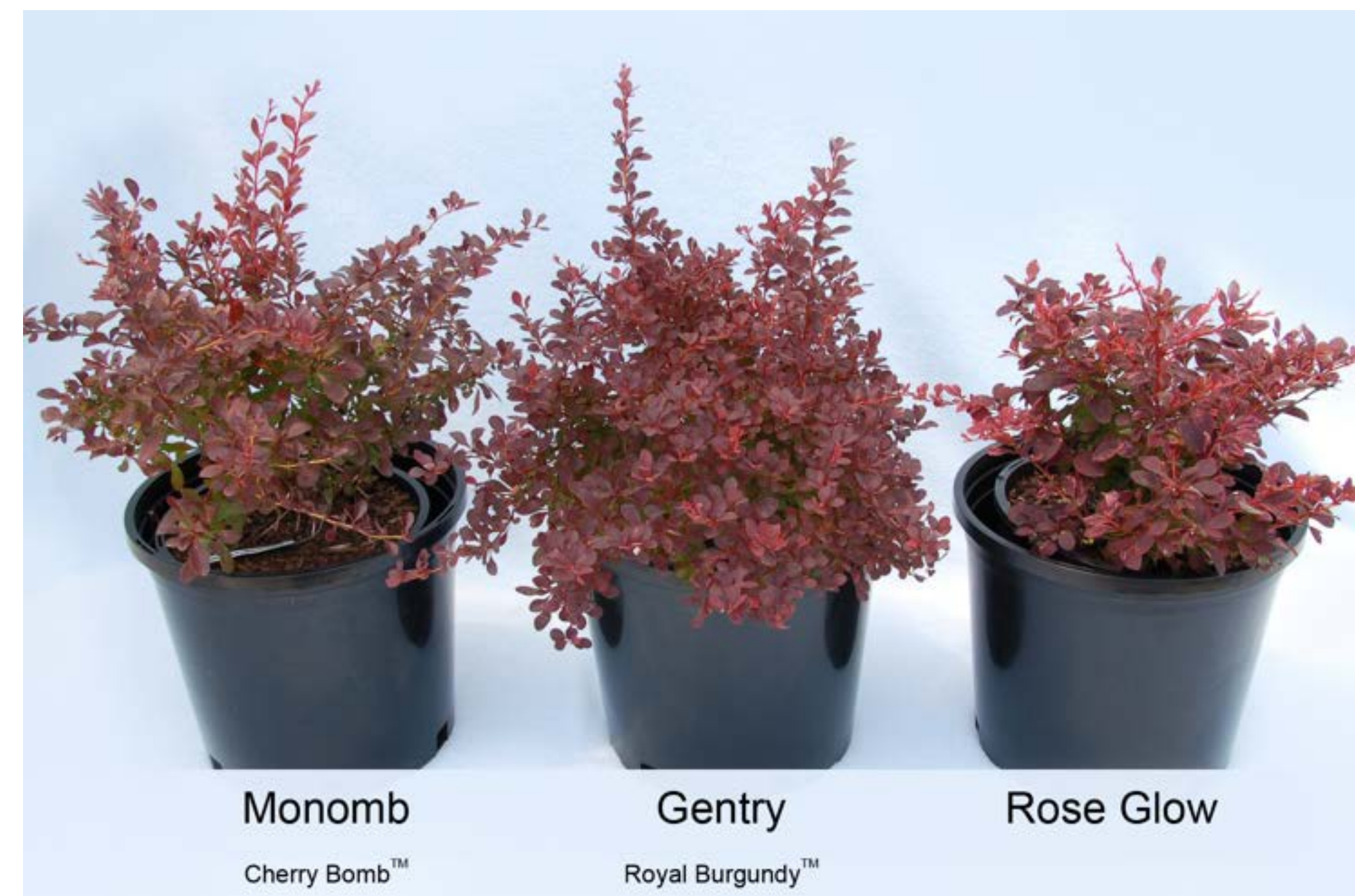
**Berberis can carry a rust disease, which harms cereal crop production.  
Environmental and health impacts have been ignored.**

Barberry eradication programs began in the early 1900s. The genus was **banned for import in Canada** in 1966.

Canadian Nursery Landscape Association lobbied for ten years and **11 cultivars (*B. thunbergii*) resistant to black stem rust were accepted**, (CNLA, 2001).

*Berberis thunbergii* cannot be sold in seven border states and others: Delaware, Connecticut, Indiana, **Maine**, Massachusetts, **Minnesota**, **New Hampshire**, **New York**, **Pennsylvania**, **Vermont** and **Wisconsin**.

**Cultivars: 'Bailgreen', 'Bailone', 'Monomb', 'Rose Glow' and 'Tara' are banned under Minnesota Statute 18.82 Section 18.78; Wisconsin Code NR 40).  
Maryland requires labelling.**



Japanese barberry cultivars allowed in Canada by CFIA  
<https://inspection.canada.ca/english/plaveg/pbrpov/cropreport/ber/app00002544e.shtml>



# Popular Norway Maple

Regulated in DE, ME, NH, NY, VT, WI ...

- Invasive species can alter forest **community structure and diversity**.
- **Inhibits the regeneration** of sugar maples due to shade, resource competition, preferential seed predation, allelochemicals ...



Distribution of Norway Maple in the United States. States shaded green have Norway maple present. In each of the shaded states, Norway maple is considered invasive. Map: Plants.usda.gov



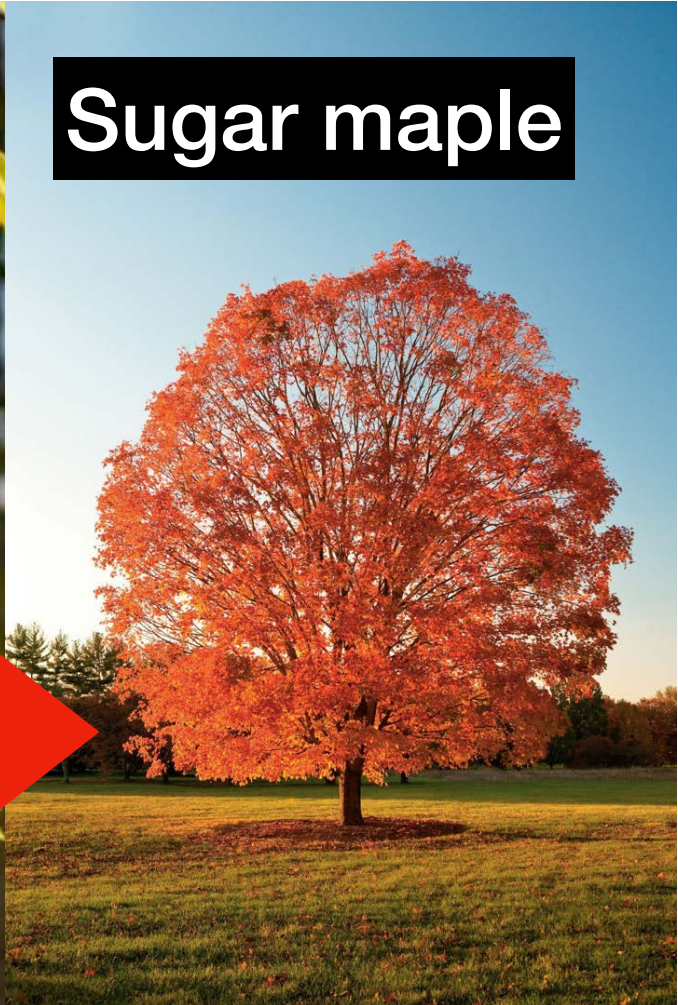
Acer platanoides 'Deborah'

<https://landscapeplants.oregonstate.edu/plants/acer-platanoides-deborah>



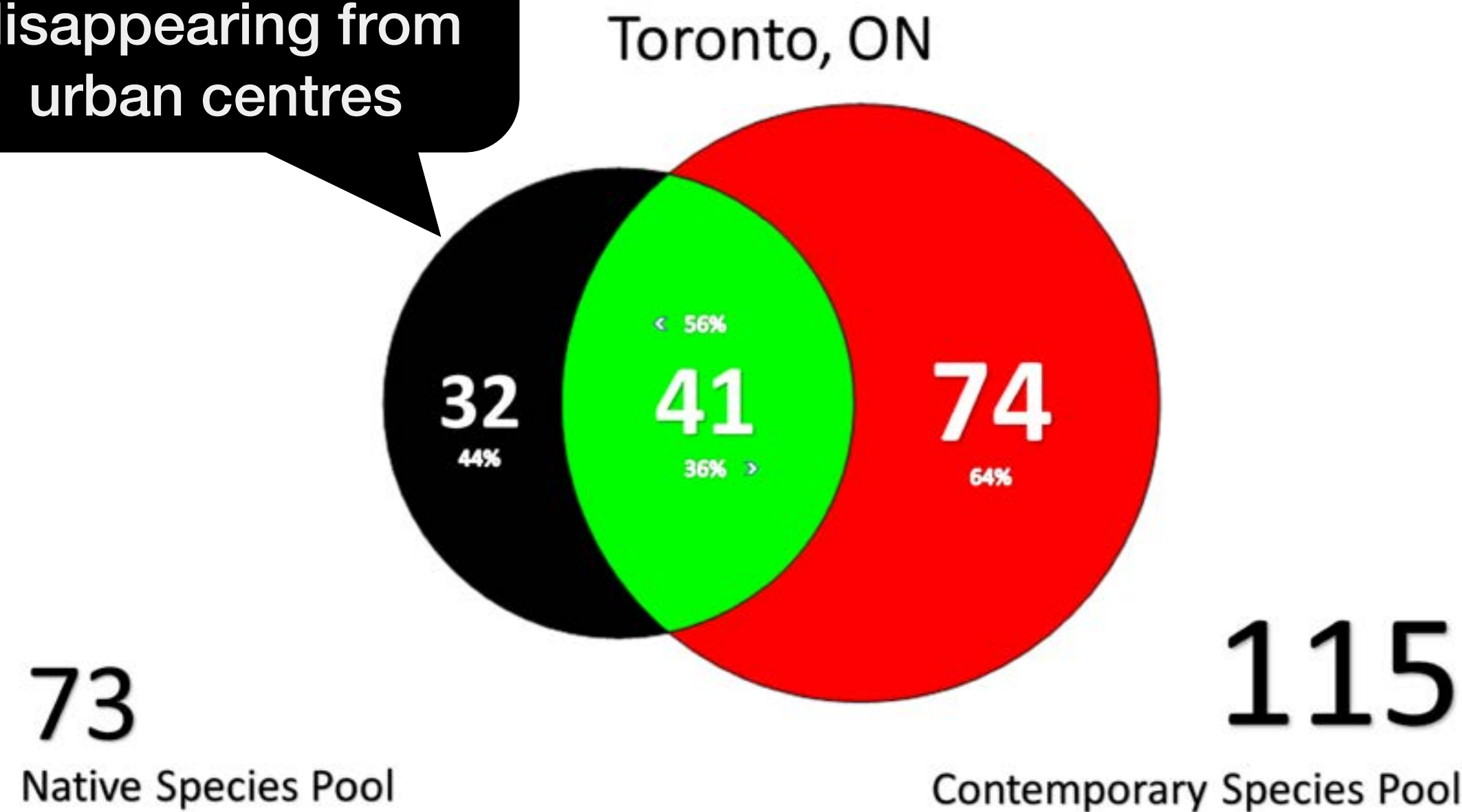
# Across North America Our natural heritage is lost

Sold as an  
ornamental



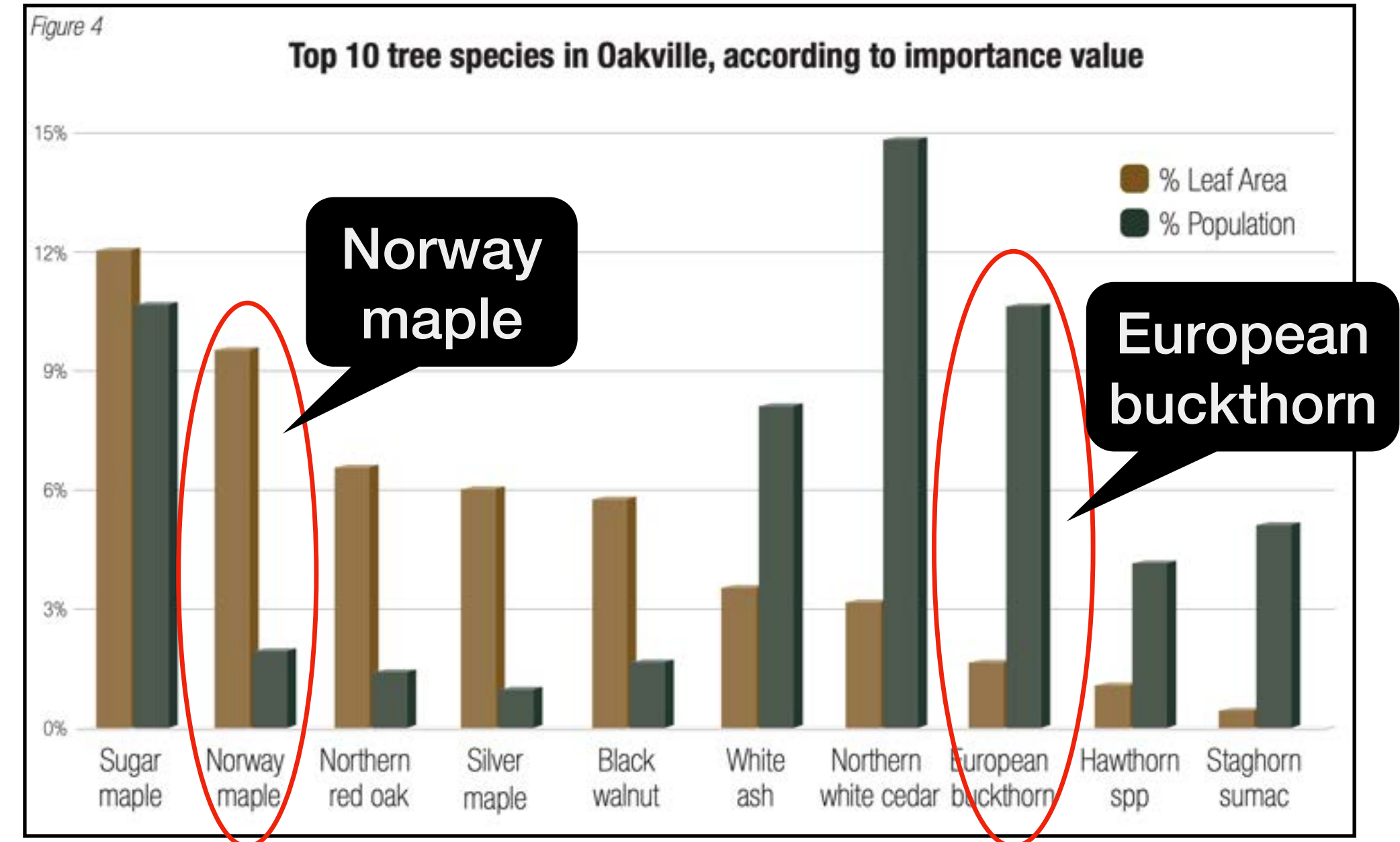
Invasive species  
push out natives

Across Canada,  
native species are  
disappearing from  
urban centres



Dark Diversity

Eric Davies, 2015

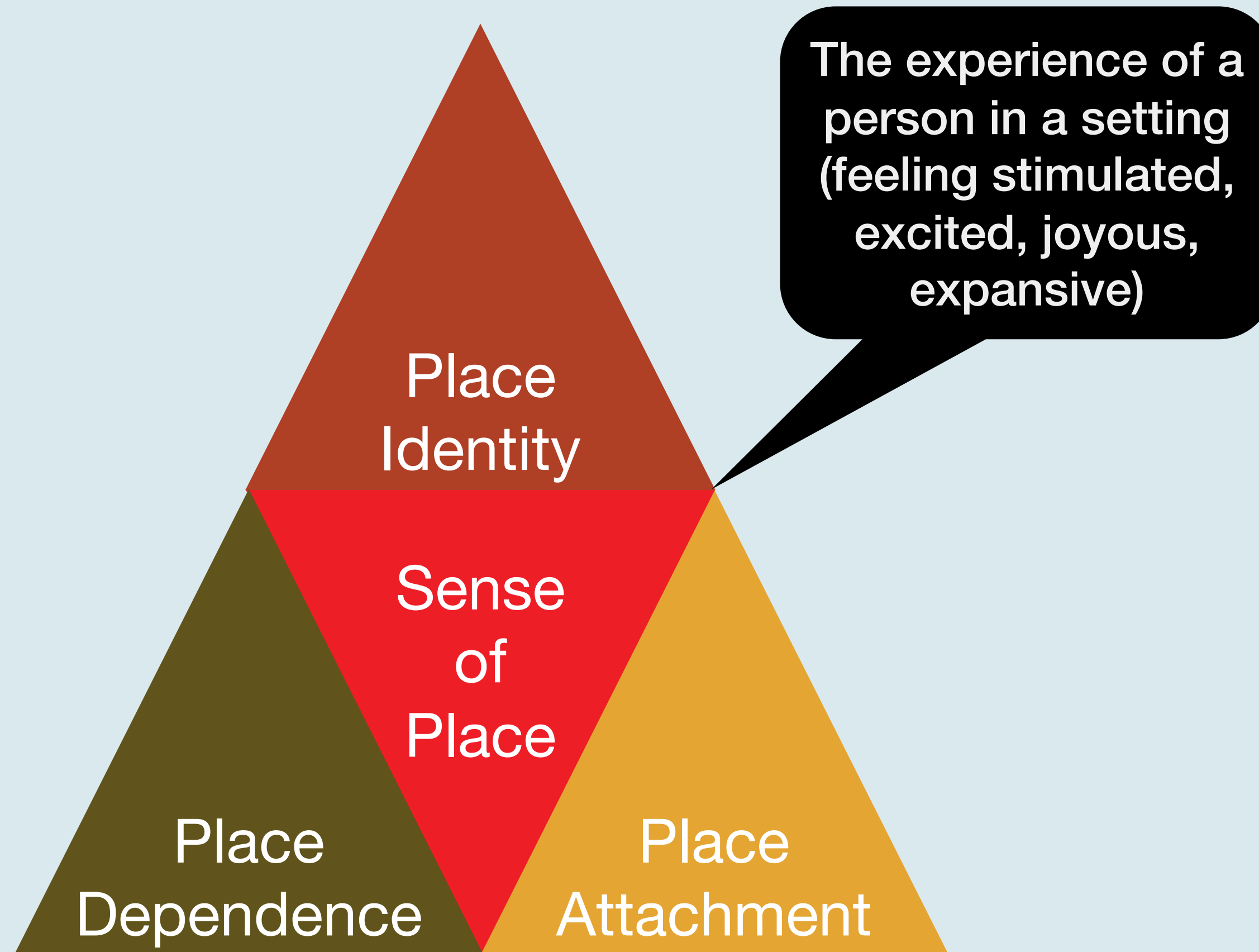


Top Tree Species in Oakville, Ontario reported in 2015

Craig, A., Santoro, A., Hanoë, I., Barker, J., Clargo, K., Burkhart, R. y. 2016. Growing Livability: A Comprehensive Study of Oakville's Urban Forest



# Our natural legacy provides a **Sense of Place**





# Norway maple is a threat to our Sugar Maples an important natural resource

Threats to an  
industry and a way of  
life

**Maple syrup and maple sugar** -- “this is something **Indigenous people** taught European settlers, and has become a huge important part of life and also the wood is very revered.” Eric Davies

**Sugar maple wood** is stronger, stiffer, harder, and denser than all of the other species of maple commercially available in lumber form.

Used extensively for flooring, veneer, and furniture making. (Norway maple is not.)





# Ecological impacts

## Often unseen by the public

- As of 2020, there are **622 wildlife species at risk (SAR)** in Canada.
- Invasive plants are responsible for the decline of at least 46 SAR and threaten habitats and ecosystems in Canada, (Environment Canada).
- Example: American Ginseng (*Panax quinquefolius*) is a culturally and ecologically important plant species threatened by garlic mustard and multiflora rose.



Prohibited in IL, MA, ME (P), NH, NY (P), PA (B), OH, WI (R)



**“Invasive species are recognized as a leading factor in the extinction of native species second only to habitat destruction.”**

**Wilcove, D., Rothstein, D., Dubow, J., Phillips, A. and E. Losos. 1998. Quantifying threats to imperiled species in the United States: Assessing the relative importance of habitat destruction, alien species, pollution, overexploitation, and disease.**



# Cascading Impacts of Invasive Species



Seed dispersal by the European starling (*Sturnus vulgaris*)

Invasive earthworms (*Lumbricus spp.*) create favourable conditions for buckthorns



Invasive predatory flatworms (*Bipalium adventitium*) follow earthworms



Buckthorn is host for oat crown rust (*Puccinia coronata*)



Soybean aphid is a major prey for the invasive lady beetle (*Harmonia axyridis*)



Buckthorn is a host for the invasive soybean aphid (*Aphis glycines*)



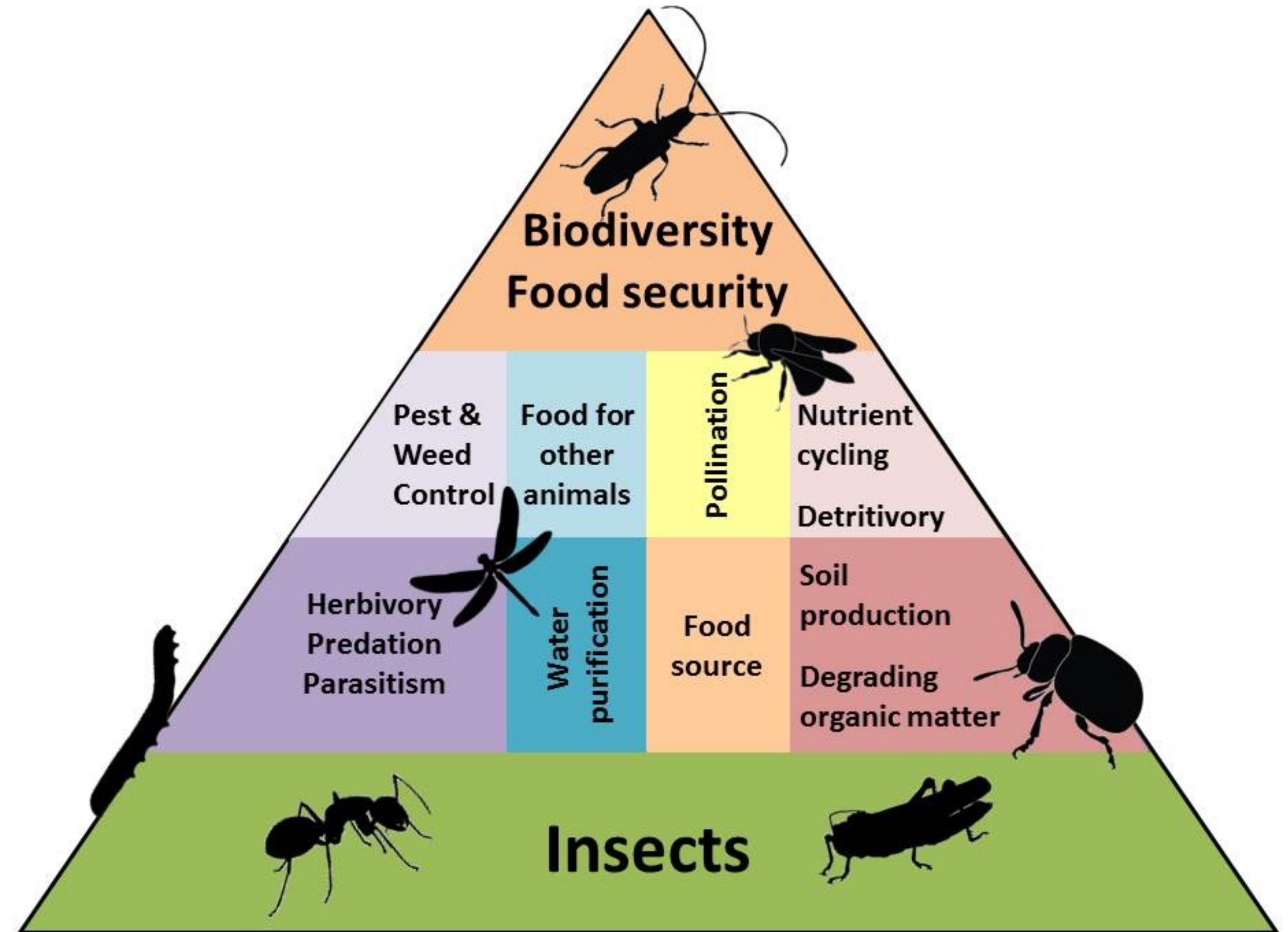
Buckthorn (*Rhamnus cathartica*) was introduced as an ornamental hedge plant in the 1800s and escaped cultivation



# It's about Relationships

When invasive plants displace native plants, they disrupt relationships: predation, parasitism, mutualism or commensalism.

About half of all insects are herbivores, and about 70% of all those are specialists that are only capable of feeding on a narrow range of plants.



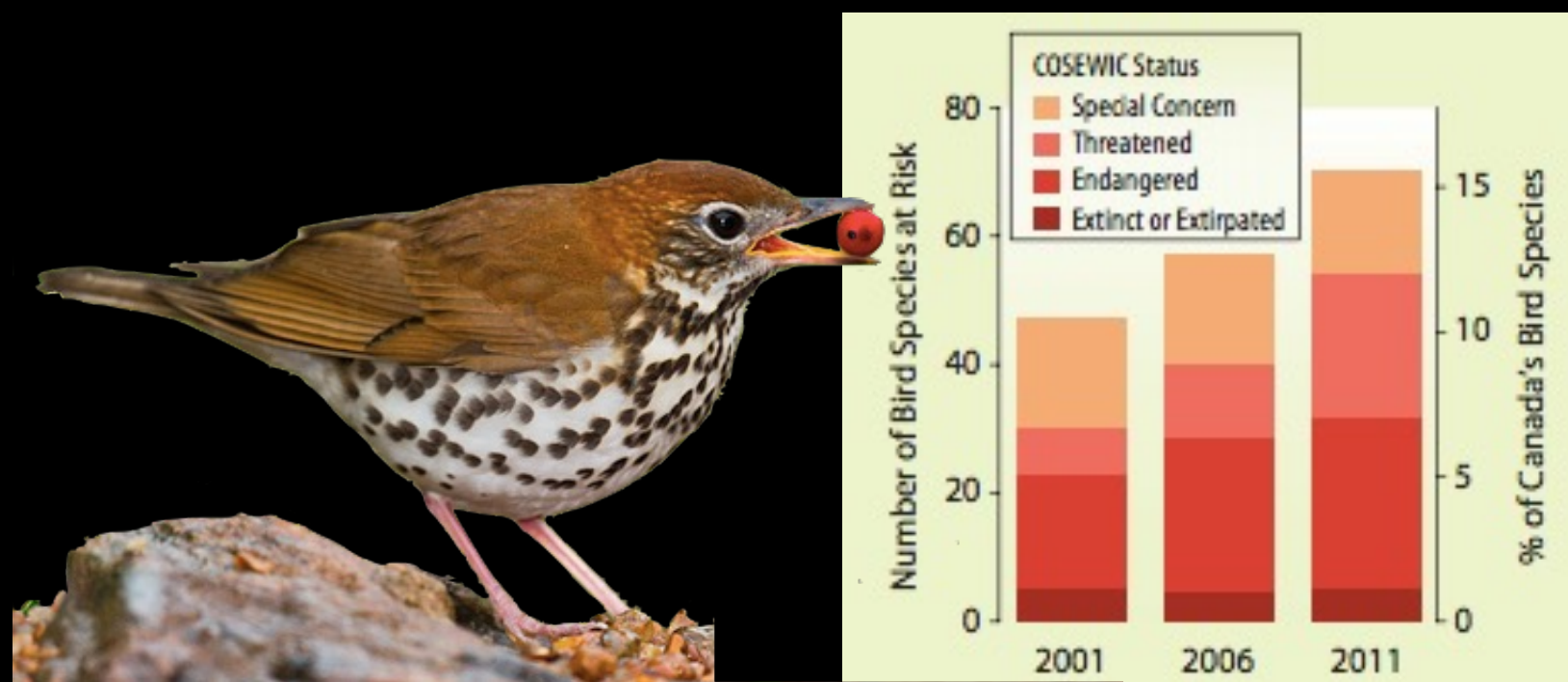
Insects play fundamental roles in the ecosystem, so maintaining insect populations is essential.



Habitat loss, pollution,  
climate change THEN  
add INVASIVE SPECIES  
...

Terrestrial insect  
abundance is  
declining by ~9%  
per decade

van Klink, Roel & Bowler, Diana & Gongalsky, Konstantin & Swengel, Ann & Gentile, Alessandro & Chase, Jonathan. (2020). Meta-analysis reveals declines in terrestrial but increases in freshwater insect abundances. Science (New York, N.Y.). 368. 417-420. 10.1126/science.aax9931.



Devastating losses among birds in every biome. Forests alone have lost 1 billion birds. Grassland bird populations collectively have declined by 53%, or another 720 million birds.

Rosenberg, et al (2019). Decline of the North American avifauna. Science. 366. eaaw1313. 10.1126/science.aaw1313.

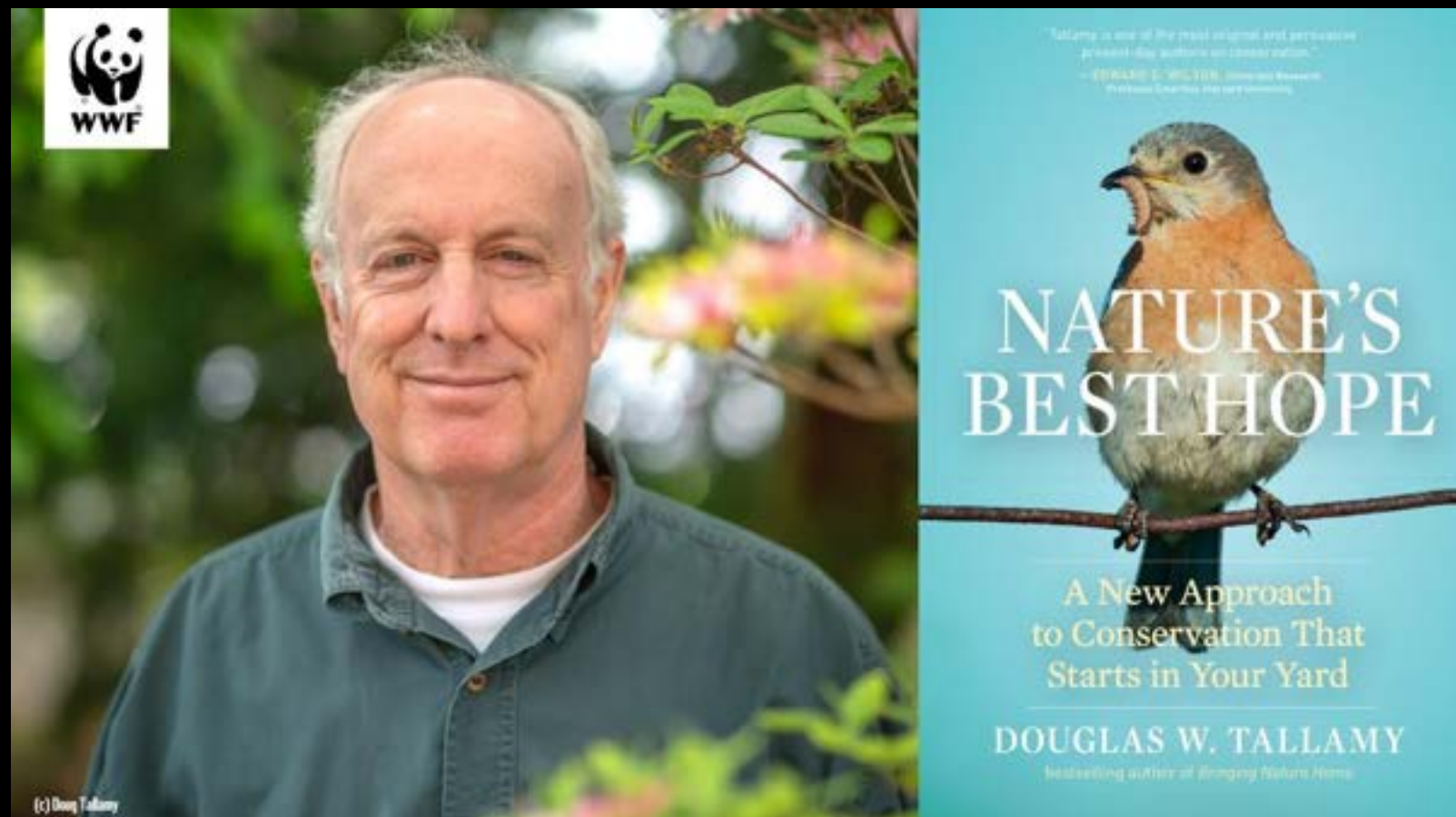
[www.birds.cornell.edu/home/bring-birds-back/](http://www.birds.cornell.edu/home/bring-birds-back/)



# Loss of native plant biodiversity

is linked to loss of native wildlife

Chickadees require 70% native plant species biomass to sustain their populations.



Doug Tallamy is the TA Baker Professor of Ag and Natural Resources in the Department of Entomology and Wildlife Ecology



# Prevent the Spread

## Before control costs mount

- Martin Neumann, the City of Guelph's manager of parks operations and forestry, said the threat of buckthorn has been known for decades, but due to lack of resources, little has been done to prevent its spread.
- "It's difficult to resource solutions for these sorts of things. It's relatively easy to find money to plant trees. It's much harder to find money to kill plants," he said.



Spread of invasive buckthorn puts Guelph's biodiversity in jeopardy, experts say

Chris Seto Guelph Mercury Monday, June 8, 2015



# "Well, no one sells buckthorn anymore."

## Unfortunately they do.

- Glossy Buckthorn, *Rhamnus frangula* syn. *Frangula alnus*, is extremely invasive. Yet cultivars are sold.
- Based on seed germination, *R. frangula* 'Columnaris' is likely to become an invasive exotic plant in the United States and Canada and should not continue to be used as an ornamental landscape shrub." (Wheeler, 2001).
- "On the basis of these two lines of evidence, we suggest that only female sterile cultivars that cannot reproduce asexually should be considered "safe" and noninvasive. Marketing less fecund cultivars as "safe" is premature at this time." (Knight, 2011)



How will the new genetics impact the existing problem?

We know the species is a problem, but what about cultivars?



*Rhamnus frangula* Fineline<sup>®</sup>  
(A 'Columnaris' 'Asplenifolia' cross)  
Image from a Home Depot Advertisement



# Aquatic invasive plants

## A growing concern

- Reduce native diversity
- Degrade water quality and impair drinking water
- Change sediment chemistry
- Prevent use of waterways for navigation, fishing and swimming
- Cause fish die offs from lack of oxygen
- Reduce waterfowl habitat
- Increase flooding risks
- Create habitat for insect-borne disease vectors



Parrot feather and Water-milfoil  
(*Myriophyllum aquaticum*, *M. heterophyllum*, *M. spicatum*, *M. spicatum* x *M. sibiricum*)





# High Risk Aquatic Plants

- In 2014, Fisheries and Oceans Canada recognized that several ornamental water plants like Parrot Feather posed a high risk to our waterways.
- It was unclear if that Department was responsible for regulating freshwater plants, so they didn't.

2019 Spring Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada Report 1 — Aquatic Invasive Species [https://www.oag-bvg.gc.ca/internet/English/parl\\_cesd\\_201904\\_01\\_e\\_43307.html](https://www.oag-bvg.gc.ca/internet/English/parl_cesd_201904_01_e_43307.html)



Scott A. McNichol, "A Question of Who's In Charge" (2002) in Elora, Ontario



# Who is responsible invasive plant regulations?

- The responsibility lies with Agriculture and Agri-Food Canada and the Canadian Food Inspection Agency.
- It also falls on the provinces and territories.



Scott A. McNichol, "A Question of Who's In Charge" (2002) in Elora, Ontario



Department or Agency	Federal Legislation - Relevant Acts many with indirect/no reference to IAS ...	
Canadian Food Inspection Agency	<ul style="list-style-type: none"><li>• <b>Canadian Food Inspection Agency Act</b> – Establishes CIFA as responsible for the administration and enforcement of the Canada Agricultural Products Act, Fish Inspection Act, Health of Animals Act, Plant Protection Act and Seeds Act. The agency is governed by the Minister of Agriculture.</li></ul>	
Agriculture and Agri-Food Canada	<ul style="list-style-type: none"><li>• <b>Plant Protection Act</b> - Under this Act, the CFIA has the authority to restrict the import, sale, possession and movement of certain plant pests.</li><li>• <b>Seeds Act</b> - No person shall sell, import or export in contravention of the regulations any seed that presents a risk of harm to human, animal or plant health or the environment.</li></ul>	
Environment Canada	<ul style="list-style-type: none"><li>• <b>Canada National Parks Act</b> – The Minister is responsible for the maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes.</li><li>• <b>Canadian Environmental Protection Act</b> – Under this act, the purposes for which a living organism is imported can be prescribed (largely intended to address biocontrols) but not if the organism is regulated by any other Act of Parliament sufficient to ensure protection to the environment and human health.</li><li>• <b>Canadian Wildlife Act and Species at Risk Act</b> – Both acts provide for measures, where necessary, for the protection of any species of wildlife in danger of extinction.</li><li>• <b>Migratory Birds Convention Act</b> – Canada is responsible to take such measures as may be necessary to control the importation of live animals and plants which it determines to be hazardous to the preservation of birds.</li><li>• <b>Wild animal and Plant Protection and Regulation of International and Inter-provincial Trade Act</b> – The responsible minister may make regulations regarding the transport of animals and plants listed under the act between provinces where the minister of the province to where the species is being imported deems it harmful to the environment.</li></ul>	
Fisheries and Oceans Canada	<ul style="list-style-type: none"><li>• <b>Fisheries Act - Aquatic Invasive Species Regulations</b> – It is prohibited to possess, import or transport listed invasive species.</li><li>• Coastal Fisheries Protection Act</li><li>• Fisheries Development Act</li><li>• Oceans Act</li></ul>	One Federal Act explicitly deals with <i>Invasive Species</i>
Health Canada	<ul style="list-style-type: none"><li>• Controlled Drugs and Substances Act</li><li>• Pest Control Products Act</li></ul>	
Industry Canada	<ul style="list-style-type: none"><li>• National Research Council Act</li></ul>	
Natural Resources	<ul style="list-style-type: none"><li>• Department of Natural Resources Act</li><li>• Forestry Act – It is not permitted to release a deleterious substance into water, which would degrade or alter the quality of the water or habitat.</li></ul>	
Public Safety and Emergency Preparedness	<ul style="list-style-type: none"><li>• Canadian Border Services Agency</li><li>• Customs Act</li></ul>	
Transport Canada	<ul style="list-style-type: none"><li>• <b>Transportation of Dangerous Goods Act</b> – Provides for control of organisms considered by the Governor in Council to be dangerous to life, health, property or the environment when handled, offered for transport or transported and prescribed to be included in this class.</li></ul>	

Newfoundland and Labrador. 2008. Exotic and Invasive Alien Species Workshop <https://www.gov.nl.ca/ifa/publications/wildlife/#exoticworkshop>

Newfoundland and Labrador. 2008. Exotic and Invasive Alien Species Workshop <https://www.gov.nl.ca/ia/publications/wildlife/#exoticworkshop>



# Legislative Review

## Shortcomings in current framework

- Most of the Legislation was written before the Invasive Alien Species issue was widely understood.
- Most Acts, both nationally and provincially, deal with **pests, substances or organisms** which can be interpreted as invasive alien species.
- Many of the Acts were written to deal with specific issues as they relate to an industry like agriculture (i.e. Plant Protection Acts).
- There is no central department or agency that oversees all preventative invasive species or biosecurity efforts in Canada, across all invasion pathways.



# Policies and Strategies

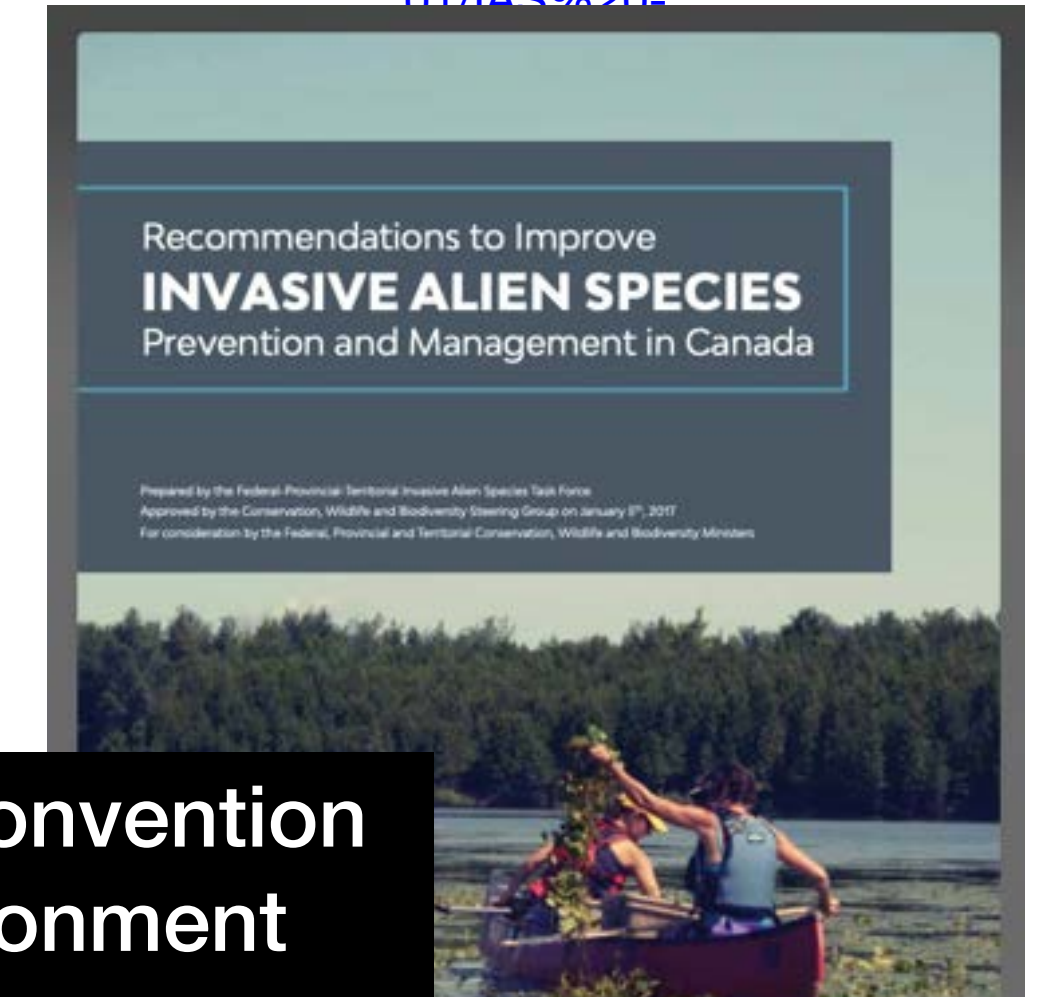
## Invasive Alien Species (IAS)

- **International Plant Protection Convention (IPPC -1951)**
- North American Plant Protection Organization (NAPPO -1976)
- Convention on Biodiversity (CBD - 1992)
- Canada's Biodiversity Strategy (CBS -1995)
- World Trade Organization - Sanitary and Phytosanitary Measures, 'SPS Agreement' (WTO 1995)
- Canadian Food Inspection Agency Act (CFIA 1997)
- **Invasive Alien Species Strategy (2004)**
- Canadian Invasive Plant Framework (CIPF - 2011 never formalized but wrapped into Plant Health and Biosecurity Directorate CFIA)
- 2020 Biodiversity Goals and Targets (2016)
- Recommendations to Improve IAS Prevention and Management (2017)

<https://biodivcanada.chm-cbd.net/documents/canadian-biodiversity-strategy>



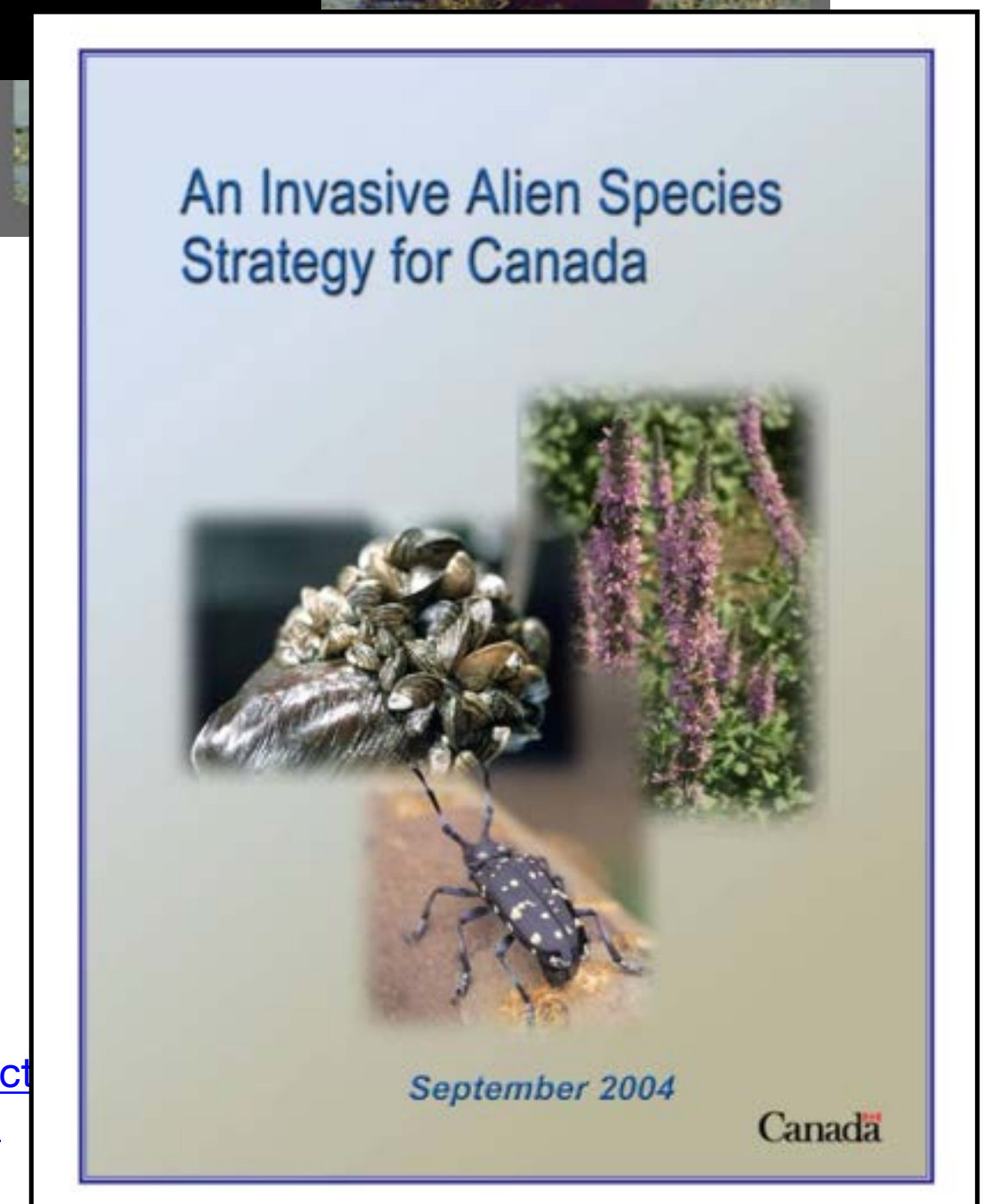
<https://biodivcanada.chm-cbd.net/sites/ca/files/2018-01/IAS%20->



**Biodiversity Convention  
Office Environment  
Canada**



[https://publications.gc.ca/collections/collection\\_2016/eccc/CW66-524-2016-eng.pdf](https://publications.gc.ca/collections/collection_2016/eccc/CW66-524-2016-eng.pdf)



<https://www.canada.ca/en/environment-climate-change/services/biodiversity/invasive-alien-species-strategy.html>



# A Canadian Invasive Plant Framework *was never formalized*

- Intent: “*to provide the basis for a nationally coordinated, multi-jurisdictional response to invasive plants.*”
- Under the Plant Protection Act, plants restricted for import, must be **domestically controllable**.
- Other plants could only be managed through cooperative accords and agreements ... “(i.e., that prevent the sale, propagation or distribution of invasive plants locally or regionally) between various groups including the nursery and garden industry, the landscape architecture profession, regional invasive plant councils, government departments and agencies, and non-governmental organizations, would be valuable in preventing local or regional spread.”(Cory Lindgren CFIA - CIPF 2011)

Oversight: Invasive Alien Species and Domestic Plant Health Programs Section  
Of Plant Health and Biosecurity Directorate within Canadian Food Inspection Agency  
Agriculture and **Agri-Food** Canada (AAFC)

Not available in  
public repositories



Document provided by Diana Mooij, Program Specialist, Invasive Alien Species, Canadian Food Inspection Agency / Government of Canada



# Canadian Food Inspection Agency (CFIA)

## National Plant Protection Organization

CFIA regulates the **intentional introduction of new plants** known to be invasive in other regions of the world but **not yet present in Canada, using the Plant Protection Act.**

The CFIA can also regulate those plants present in Canada, but which have a **limited distribution** and are or will be under official control.

(1) **Seeds Act and Regulations;**

(2) **Weed Seeds Order;**

(3) **Risk analyses;**

(4) Conducts surveys, monitors, manages, and controls regulated invasive plants in partnership with other stakeholders. The agency also promotes and develops education and awareness programs...

**Intentional planting of kudzu has been the most significant factor in its spread.**

Kudzu is regulated as a pest in Canada under the Plant Protection Act. It is also listed as a prohibited noxious weed on the Weed Seeds Order, 2016, under the Seeds Act. **Importation and domestic movement of regulated plants and their propagative parts is prohibited.**



**Kudzu - *Pueraria montana***

Attribution, Sam Brinker, Ontario Ministry of Natural Resources



# CFIA conducts PRAs

## Phytosanitary Risk Assessments

- PRAs are conducted in accordance with international guidelines established by the **International Plant Protection Convention (IPPC)** of the Food and Agriculture Organization of the United Nations (FAO).
- Plant taxa are not authorized for import if they are “**host plants of quarantine pests**” or “**plants as pests.**”
- More WRAs (**Weed Risk Assessments**) are needed for plants already present.

Aegilops cylindrica  
... regulated  
agricultural weed



Jointed Goatgrass

List of available weed risk analysis documents prepared by CFIA

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

~413 entrees

Species	Categorization	Weed Risk Assessment	Risk Management Document	Present in Canada	Plant Hardiness	Impact Potential	Regulated (Plant)
<i>Abies homolepis</i>	Yes	No	No	Only in cultivation	6		
<i>Abies sibirica</i>	Yes	No	No	Only in cultivation	1		
<i>Acanthospermum australe</i>	Yes	No	No	No	8		
<i>Achillea santolina</i>	Yes	No	No	No	8		
<i>Achyranthes aspera</i>	Yes	No	No	No	7		
<i>Achyranthes japonica</i>	Yes	Yes	No	Yes	5	Environmental	No
<i>Acroceras zizanioides</i>	Yes	No	No	No	10	Environmental	No
<i>Actinoscirpus grossus</i>	Yes	No	No	No	8	Agricultural	No
<i>Adonis aestivalis</i>	Yes	Pending	No	Unknown	5	Agricultural	No
<i>Adonis flammea</i>	Yes	Pending	No	No	5	Agricultural	No
<i>Aegilops cylindrica</i>	No	Yes	Yes	Yes	3	Agricultural	Yes
<i>Aegilops geniculata</i>	Yes	Pending	No	No	6	Agricultural	No
<i>Aegilops spp.</i>	Yes	Pending	No	Only in cultivation	5	Agricultural	<i>A. cylindrica</i>
<i>Aegilops triuncialis</i>	Yes	Yes	No	No	5	Agricultural	No
<i>Ageratum conyzoides</i>	No	Yes	No	No	7	Agricultural	No
<i>Agrostis avenacea</i>	Yes	Pending	No	No	8	Environmental	No
<i>Ailanthus altissima</i>	Yes	Pending	No	Yes	5	Environmental	No

Japanese chaff  
flower is not  
regulated yet is –  
high risk according  
to APHIS

<https://inspection.canada.ca/plant-health/invasive-species/invasive-plants/weed-risk-analysis-documents/eng/1427387489015/1427397156216>

<https://inspection.canada.ca/plant-health/invasive-species/directives/pest-risk-management/rmd-13-04/eng/1405604253368/1405604308682?chap=12>



# 17 **Pest Plants** are regulated under the *Plant Protection Act*

Giant Reed - *Arundo donax* is a plant in the horticultural trade.

Eventhough, small populations exist in southwestern Ontario, it is believed to be **domestically controllable.**

Predicted distribution of *Arundo donax* in Canada and the United States



## Canada's Regulated Pest Plants ...

- |  |  |
|--|--|
| 1. Chinese yam – <i>Dioscorea polystachya</i>            | 10. Paterson's curse – <i>Echium plantagineum</i>  |
| 2. Common crupina – <i>Crupina vulgaris</i>              | 11. Serrated tussock – <i>Nassella trichotoma</i>  |
| 3. Dallis grass – <i>Paspalum dilatatum</i>              | 12. Silverleaf nightshade – <i>Solanum elaeagnifolium</i>  |
| 4. Devil's-tail tearthumb – <i>Persicaria perfoliata</i> | 13. Slender foxtail – <i>Alopecurus myosuroides</i>  |
| 5. Giant reed – <i>Arundo donax</i>                      | 14. South African and Madagascar ragwort – <i>Senecio inaequidens</i> ; <i>S. madagascariensis</i> |
| 6. Iberian starthistle – <i>Centaurea iberica</i>        | 15. Syrian bean-caper – <i>Zygophyllum fabago</i>  |
| 7. Japanese stiltgrass – <i>Microstegium vimineum</i>    | 16. Woolly cup grass – <i>Eriochloa villosa</i>  |
| 8. Jointed goatgrass – <i>Aegilops cylindrica</i>        | 17. Yellow starthistle – <i>Centaurea solstitialis</i>   |
| 9. Kudzu – <i>Pueraria montana</i>                       |  |

<https://inspection.canada.ca/plant-health/invasive-species/invasive-plants/invasive-plants/eng/1331614724083/1331614823132>

<https://inspection.canada.ca/plant-health/invasive-species/regulated-pests/eng/1363317115207/1363317187811>

<https://inspection.canada.ca/plant-health/invasive-species/directives/pest-risk-management/rmd-16-02/eng/1480113538475/1480113602164>



# *Arundo donax*

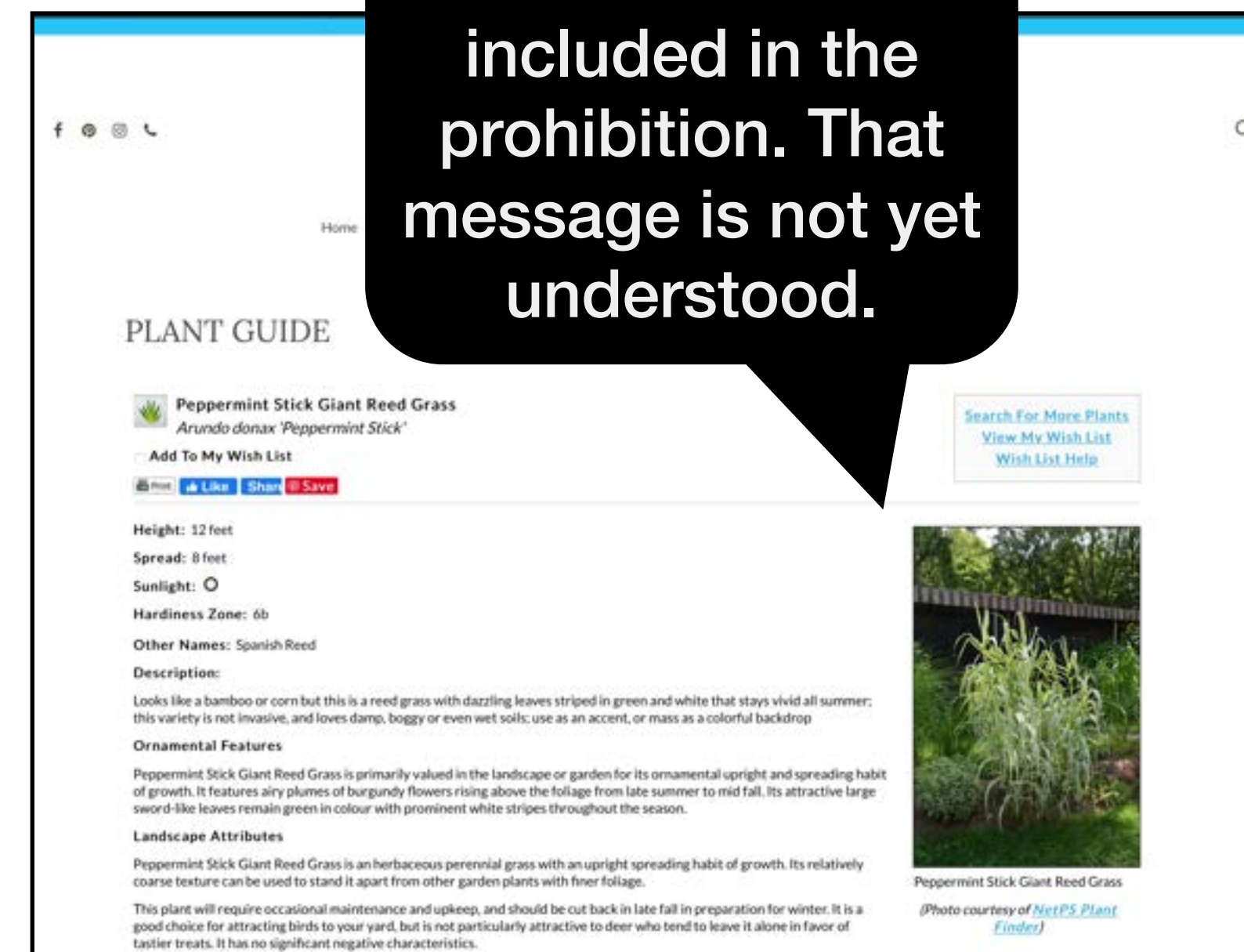
## Phytosanitary Risk Assessment (PRA)

### Impacts on Stakeholders

- “Parks and recreational users, producers, landowners and the general public would be protected from the potential uncontrolled spread of this species.
  - *Arundo donax* would not be permitted to be grown commercially as a biofuel or for other uses in Canada, potentially resulting in a loss of opportunity for these industries.
  - **Horticultural varieties would be prohibited** from import which could result in potential lost opportunities for the horticultural industry.
- **Federal regulation would avoid a province by province approach to legislation, which could be less consistent across Canada and more difficult for Canadians to understand and comply with.”**

Probability of establishment is rated "Medium" for *A. donax*, as it has the potential to become established in five Plant Hardiness Zones in Canada (i.e., USDA Plant Hardiness Zones 6-10).

Cultivars are included in the prohibition. That message is not yet understood.



Advertisement Accessed March 24, 2022 - [Queried the Shop](#) - out of stock -



# Weed seeds are regulated under the *Seeds Act*

Purple loosestrife, *Lythrum salicaria*, is controlled as a Class 2 Primary Noxious weed, under the Seeds Act

All seed shall comply with the provisions of the *Canada Seeds Act and Regulations*

“no person shall (a) sell, import into Canada or export from Canada any seed unless the seed conforms to the prescribed standard.”

“**seed shall not contain Prohibited Noxious Weed seeds**” (7 (1))

Pursuant to CFIA’s [Invasive Plant Policy](#) species of concern are listed in the **Weed Seeds Order** (WSO) as Prohibited Noxious Weeds to prevent the introduction and establishment of invasive plants.



Grain



Purple loosestrife

<https://laws-lois.justice.gc.ca/eng/regulations/SOR-2016-93/page-2.html#h-838559>

<https://inspection.canada.ca/plant-health/invasive-species/invasive-plants/policy/eng/1328298038970/1328298211382>



# Plant Sales

## Selling Invasive Species

“How do we decide what seeds to sell? This year we limited the varieties of naturalized plants and also included a “warning” about planting these in areas where they might take over. “

No person shall sell, import or export in contravention of the regulations any seed that presents a risk of harm to human, animal or plant health or the environment

Wildflower mixtures and similar products intended for landscape gardening use, sown over small areas, where all, some or none of the components are listed in Schedule I and the seed is not labelled with a Ground Cover Mixture grade name 6.(2)(j) Table: XV wildflower mixtures and similar products intended for landscape gardening use. Table XV.

Table XV

Applicable to:

Ground cover mixtures composed of seed of two or more kinds, other than cereal mixtures, forage mixtures and lawn or turf mixtures.				
1	2	3	4	5
Maximum Percentage by Weight				
Grade Name	Maximum Number of Noxious Weed Seeds per 25 g	Total Weeds	Other Crops	Minimum Percentage of Pure Seed by Weight
1. Canada No. 1 Ground Cover Mixture	25	0.5	3	85
2. Canada No. 2 Ground Cover Mixture	75	1	5	75

Buttercup, common (Ranunculus acris)  
Daisy, Ox-eye (Chrysanthemum leucanthemum)  
Dame's Rocket (Hesperis matronalis)  
Pea, Everlasting (Lathyrus latifolius)  
Pink, Deptford (Dianthus armeria)  
Queen Anne's Lace (Daucus carota)  
Thistle, Globe (Echinops sphaerocephalus)  
Yarrow (Achillea millefolium)

Daisy, Ox-eye (*Chrysanthemum leucanthemum* syn *Leucanthemum vulgare*) and Queen Anne's Lace (*Daucus carota*) are classified as Class 3 Secondary Noxious weeds



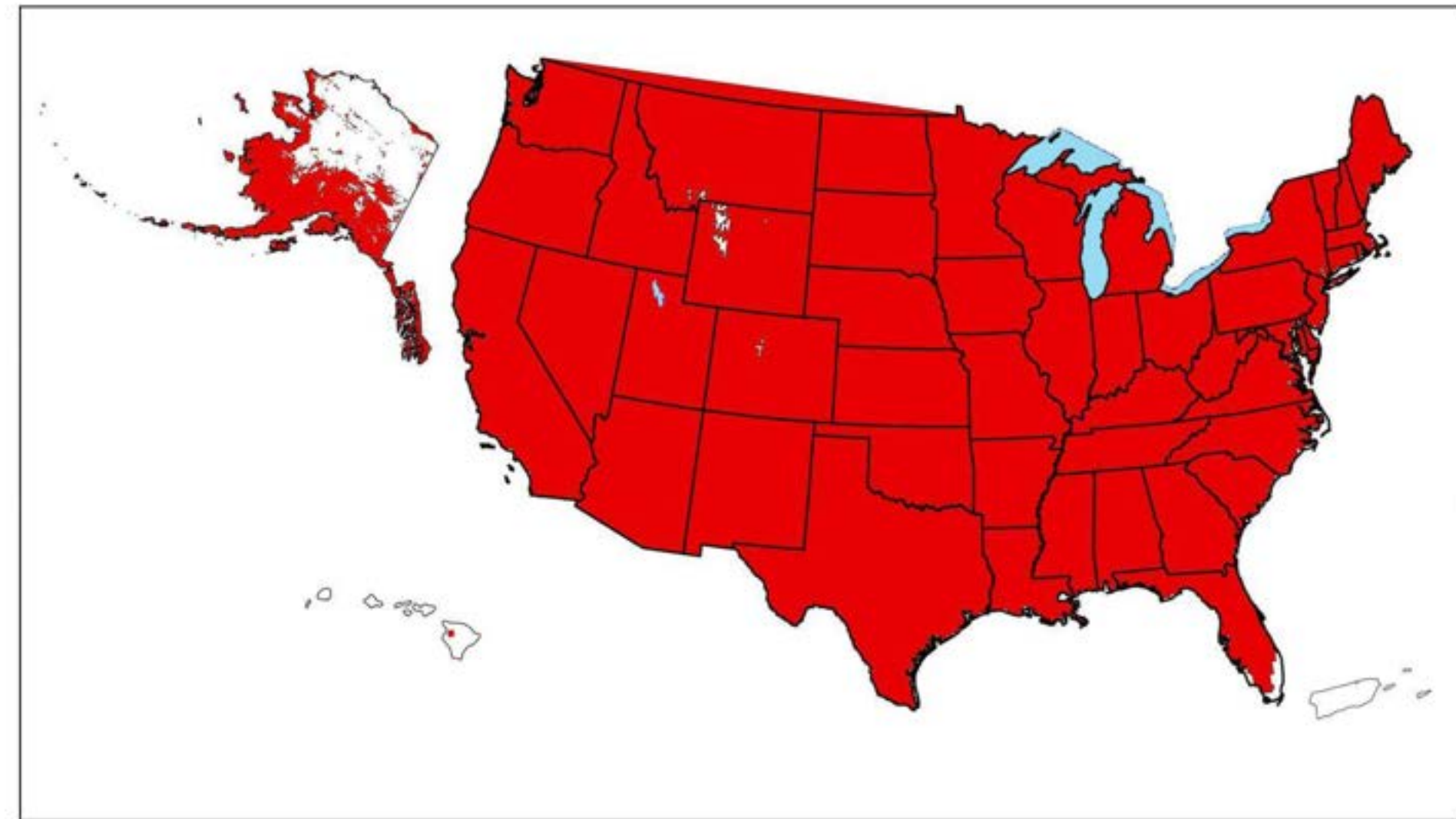


Jim Robbins  
CC BY-NC-ND 4.0



# There is no PRA for Purple Loosestrife though it is regulated as a Class 2 Primary Noxious Weed under the Seeds Act

## Michigan Weed Risk Assessment



**Figure 1.** Predicted distribution of *L. salicaria* in the United States. Map insets for Alaska, Hawaii, and Puerto Rico are not to scale.

### 2. Results

Model Probabilities: P(Major Invader) = 95.7%  
P(Minor Invader) = 4.2%  
P(Non-Invader) = 0.1%

Risk Result = **High** Risk

Secondary Screening = Not applicable

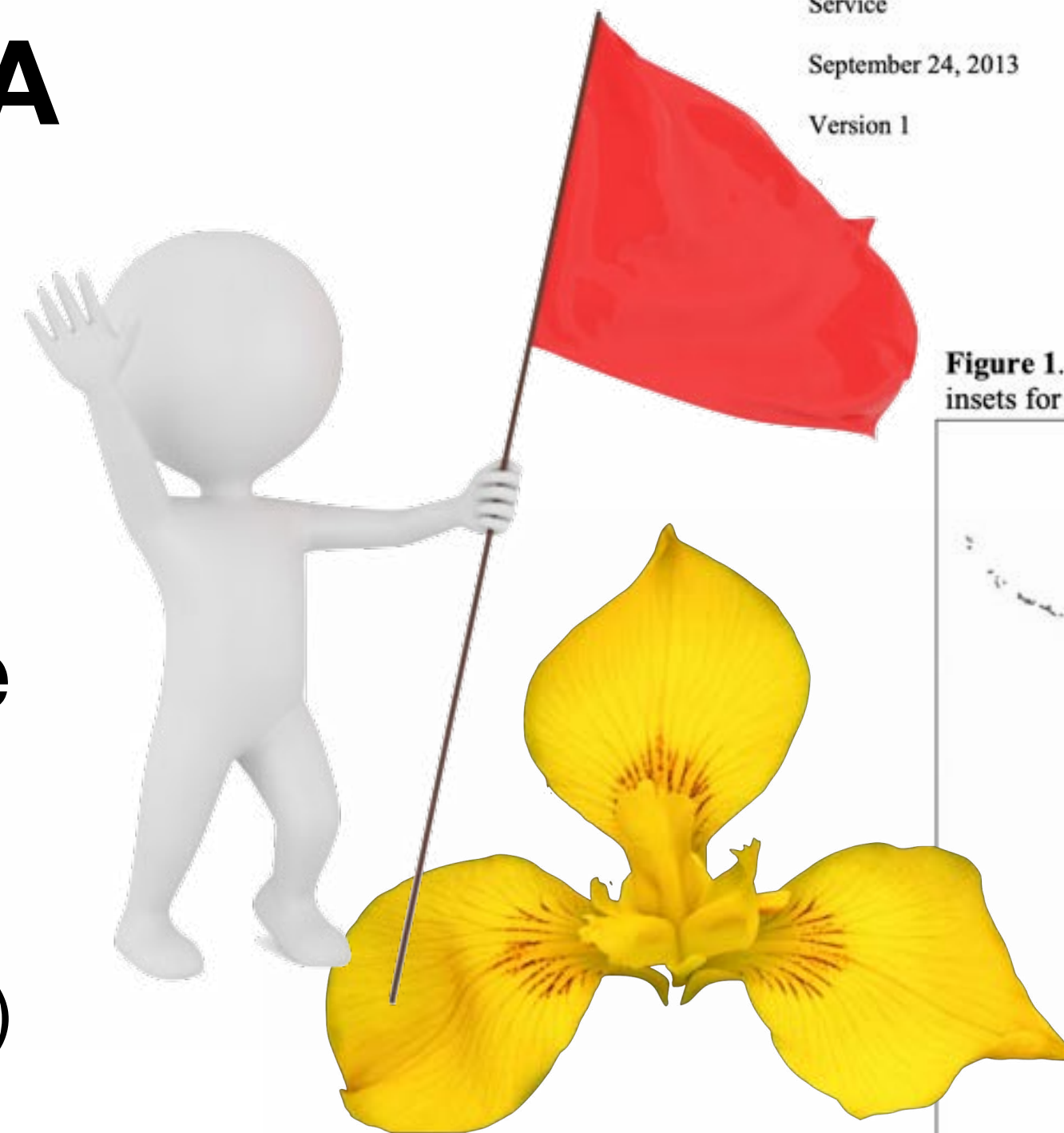
Weed Risk Assessment for *Lythrum salicaria* L. (Lythraceae) – Purple loosestrife  
[https://www.michigan.gov/-/media/Project/Websites/invasives/Documents/ID/Plants/Aquatic/WRA\\_PurpleLoosestrife.pdf?rev=4054bfd431f448a7861eb04913a81378](https://www.michigan.gov/-/media/Project/Websites/invasives/Documents/ID/Plants/Aquatic/WRA_PurpleLoosestrife.pdf?rev=4054bfd431f448a7861eb04913a81378)



# Yellow Flag Iris should raise Red Flags

## *Iris pseudacorus* has no PRA

- *Iris pseudacorus* is High Risk (Fisheries and Oceans Canada)
- One hundred percent of the simulated risk scores were in the “High Risk” category in the uncertainty analysis, so our result seems robust.” (APHIS - WRA)
- At what point do we take action?



United States Department of Agriculture

United States  
Department of  
Agriculture

Animal and Plant  
Health Inspection  
Service

September 24, 2013

Version 1

### Weed Risk Assessment for *Iris pseudacorus* L. (Iridaceae) – Yellow flag iris



Left: *Iris pseudacorus* flower. Right: A colony of *Iris pseudacorus* (source: Bugwood, 2013).

**Figure 1.** Predicted distribution of *Iris pseudacorus* in the United States. Map insets for Alaska, Hawaii, and Puerto Rico are not to scale.



#### 2. Results and Conclusion

Model Probabilities: P(Major Invader) = 81.1%  
P(Minor Invader) = 18.2%  
P(Non-Invader) = 0.7%

Risk Result = High Risk

Secondary Screening = Not Applicable

Aphis WRA *Iris pseudacorus*: [www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/weeds/downloads/wra/Iris\\_pseudacorus\\_WRA.pdf](http://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/Iris_pseudacorus_WRA.pdf)



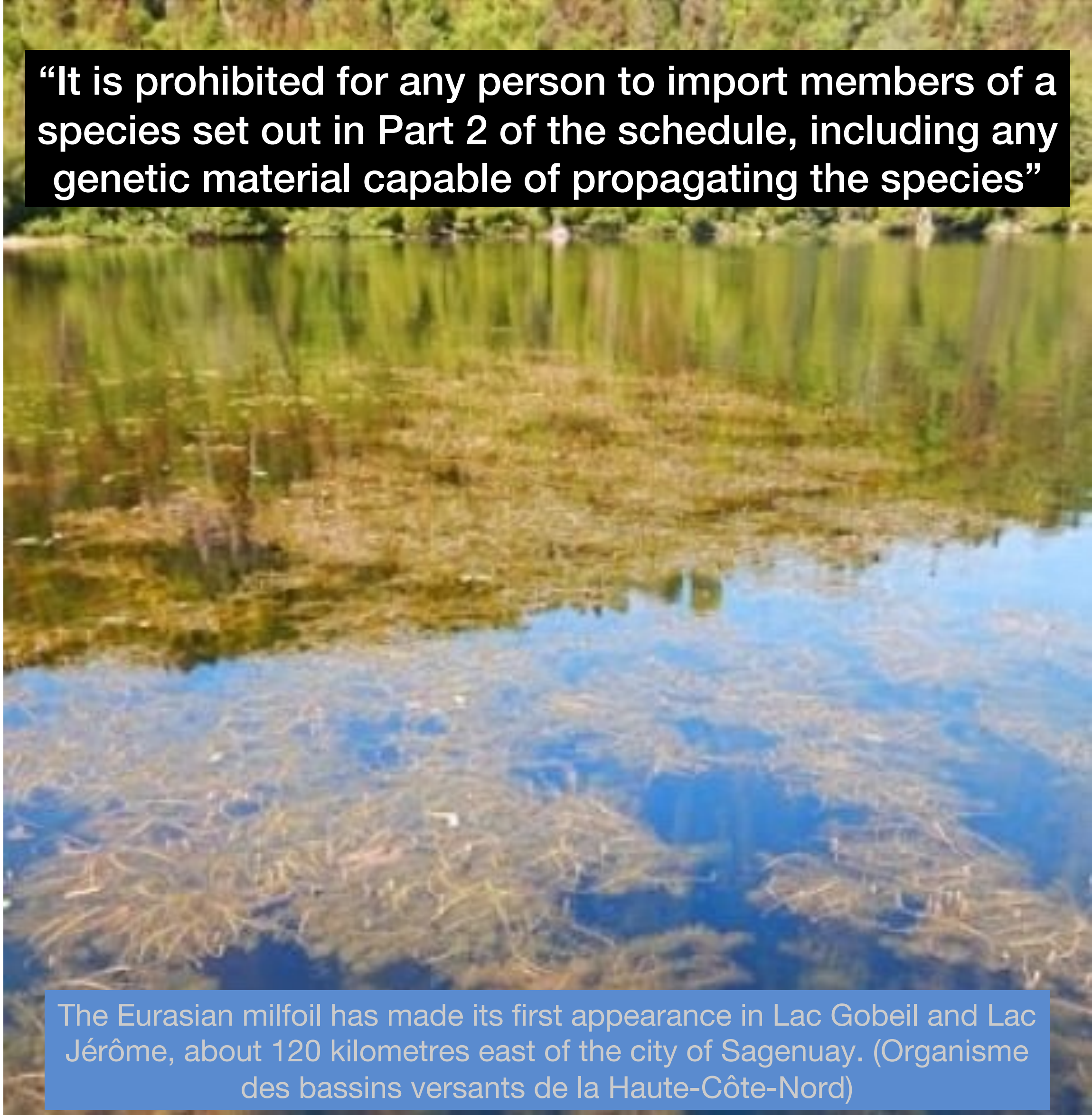
# The Fisheries Act Revised in 2015

## Aquatic Invasive Species Regulations fails to list invasive plants in Part 2

“We found that Fisheries and Oceans Canada was **unclear** on whether its responsibilities for regulating aquatic invasive species included freshwater plants.”  
**(Auditor General Report, 2019)**

2019 Spring Reports of the Commissioner of the Environment and Sustainable Development to the Parliament of Canada Report 1—Aquatic Invasive Species  
[https://www.oag-bvg.gc.ca/internet/English/parl\\_cesd\\_201904\\_01\\_e\\_43307.html](https://www.oag-bvg.gc.ca/internet/English/parl_cesd_201904_01_e_43307.html)

<https://gazette.gc.ca/rp-pr/p2/2015/2015-06-17/html/sor-dors121-eng.html>



“It is prohibited for any person to import members of a species set out in Part 2 of the schedule, including any genetic material capable of propagating the species”

The Eurasian milfoil has made its first appearance in Lac Gobeil and Lac Jérôme, about 120 kilometres east of the city of Saguenay. (Organisme des bassins versants de la Haute-Côte-Nord)

<https://www.cbc.ca/news/canada/montreal/eurasian-milfoil-invasive-plant-quebec-cote-nord-1.3720125>



# Weed Control Acts

## Eight of ten provinces but no territories

None of these specifically address sales of invasive ornamental plants, though a few ornamentals listed.

- **Alberta** [Weed Control Act](#) - Two classes: Prohibited and Noxious Weeds. Prohibited (e.g. Tamarix - *Tamarix* spp.); Noxious Weeds (e.g. Common baby's-breath - *Gypsophila paniculata*) (Includes aquatics AIS - Fisheries Act)
- **British Columbia** [Weed Control Act](#) Noxious Weeds (e.g. Purple loosestrife - *Lythrum salicaria*). (Aquatic IAS Act)
- **Manitoba** [The Noxious Weeds Act](#) Three tiers depending on the prevalence. (e.g. Tier 1- *Tamarix ramosissima*)
- **New Brunswick** [Weed Control Act](#)
- Newfoundland & Labrador - none apparent
- Nova Scotia - none apparent
- **Ontario** [Weed Control Act](#): (e.g. Poison Ivy, *Toxicodendron radicans*). (Separate IAS Act)
- **Prince Edward Island** [Weed Control Act](#) (one species listed Purple loosestrife, *Lythrum salicaria*)
- **Quebec** [Regulation respecting noxious weeds](#) (different regulations depending on location, cultivated versus vacant land) - Quebec uses civil code rather than common law.
- **Saskatchewan** [Weed Control Act](#) Three classes: Prohibited, Noxious Weeds, Nuisance. (Includes aquatic AIS, e.g. Prohibited: Flowering Rush - *Butomus umbellatus*)
- Northwest Territories, Nunavut, Yukon do not have Weed Acts.



# Acts that explicitly regulate IAS



- **Alberta [The Fisheries Act](#)** was amended to address AIS including plants. “A person shall not place or keep an invasive organism in or allow an invasive organism to enter, water of any kind.” Example: Flowering rush (*Butomus umbellatus*). These plants appear on the **Noxious Weed List** as prohibited.
- **Manitoba [The Water Protection Act](#)** prohibits possession of a member of an aquatic invasive species like *Iris pseudacorus*, in Manitoba; **[Aquatic Invasive Species Regulation](#)** mandates that watercraft be free of invasive aquatic plants.
- **Ontario [Invasive Species Act](#)** Two classes: Prohibited: (e.g. Parrot feather, *Myriophyllum aquaticum*); Restricted: (Fanwort *Cabomba caroliniana*) • No buying, selling, leasing or trading or offering to buy, sell, lease or trade a member of a restricted invasive species. There is a provision that specifically regulates Watercrafts as carriers.



**Currently, Ontario is the only province or territory with a statute that directly addresses IAS.**

## Ontario Invasive Species Act

**Prohibited activities ...** Buying, selling, leasing or trading or offering to buy, sell, lease or trade a member of the species. O. Reg. 702/21, s. 4.” Revised January 1, 2022.

*Lieutenant Governor could exempt restricted species.*

Invasive Species Act, 2015, S.O. 2015, c. 22 - Bill 37

<https://www.ontario.ca/laws/statute/s15022>

[https://www.canlii.org/en/on/laws/regu/o-reg-354-16/latest/o-reg-354-16.html#sec5\\_smooth](https://www.canlii.org/en/on/laws/regu/o-reg-354-16/latest/o-reg-354-16.html#sec5_smooth)

**15 plants listed.**

### Prohibited (All Aquatic)

Brazilian Waterweed — *Egeria densa*

Hydrilla — *Hydrilla verticillata*

Parrot’s-feather — *Myriophyllum aquaticum*

Water Soldier — *Stratiotes aloides*

European Water — Chestnut *Trapa natans*

### Restricted (Aquatic)

Fanwort — *Cabomba caroliniana*

European frogbit — *Hydrocharis morsus-ranae*

Yellow floating heart — *Nymphoides peltata*

### Restricted (Terrestrial)

Black dog-strangling vine — *Cynanchum louiseae*

Dog-strangling vine — *Cynanchum rossicum*

Himalayan knotweed — *Koenigia polystachya*

Japanese knotweed — *Reynoutria japonica*

Giant knotweed — *Reynoutria sachalinensis*

Bohemian knotweed — *Reynoutria xbohemica*

Phragmites — *Phragmites australis* subsp. *australis*

Not yet documented outside of cultivation.

Parrot’s feather - *Myriophyllum aquaticum*  
Parrot’s feather forms dense mats of vegetation and can be found growing along lake and pond edges and slow-moving waterways. ...  
Image: King County, Washington State



# Parrot's-feather regulation

Inconsistencies and confusion

## *Myriophyllum aquaticum*

- Regulated in MB, ON (P)
- Regulated or Prohibited -  
USA: AL, CO, CT, ID, IL, IN, MA, ME, MI, MN, MT, NE, NH, NY, OH, OR, VT, WA, WI, PR ...
- Variable restrictions: *M. heterophyllum* (AB, SK), *M. spicatum* (AB, MB, SK), *M. spicatum* x *M. sibiricum*



From an advertisement  
for *M. spicatum*.

*M. spicatum* image source:  
<https://www.aquasabi.com/Myriophyllum-spicatum-Bunch>

## Risk Assessment to Non-Indigenous Freshwater Plants in Trade in Canada

Scientific name	Common name	Lowest hardiness zone found	AqWRA score	Established in Canada &/or U.S.	Threshold 40 (US)	Thresholds 24,29,31 (US)
<i>Phragmites australis</i> (Cav.) Trin. ex Steud. <sup>2</sup>	Common reed	2	75	Canada & U.S. (Native and introduced in both countries)	High	High
<i>Myriophyllum aquaticum</i> (Vell.) Verdc.	Parrot's-feather	5	75	Canada & U.S.	High	High
<i>Alternanthera philoxeroides</i> (Mart.) Griseb.	Alligator-weed	7	75	U.S.	High	High
<i>Hydrilla verticillata</i> (L. f.) Royle <sup>1</sup>	Hydrilla	3	79	U.S.	High	High
<i>Myriophyllum spicatum</i> L.	Eurasian water- milfoil	3	81	Canada & U.S.	High	High
<i>Eichhornia crassipes</i> (Mart.) Solms	Water-hyacinth	6	81	U.S.	High	High

Gantz, Crysta A., Mandrak, Nicholas E. and Keller, Reuben P. 2013. Application of an Aquatic Plant Risk Assessment to Non-Indigenous Freshwater Plants in Trade in Canada. Canadian Science Advisory Secretariat (CSAS) <https://waves-vagues.dfo-mpo.gc.ca/Library/361289.pdf>

Azan, S & Bardecki, Michal & Laursen, A. (2015). Invasive aquatic plants in the aquarium and ornamental pond industries: A risk assessment for southern Ontario (Canada). Weed Research. 55. 10.1111/wre.12135.

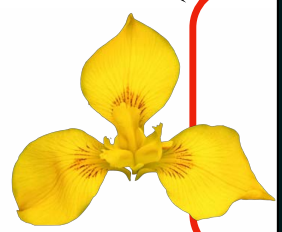


# High Risk Species for Sale

## Higher volume - higher risk

- Canadian survey found extensive use of invasive plants for aquariums and ornamental ponds.
- Only a few provinces are regulating some of these species and this list is far from comprehensive.
- We need a central database for risk analysis, for identification and name clarity.

APHIS WRA  
81% High Risk



HIGH RISK Invasive aquatic taxa with the highest volume of sales in Canada						
Scientific name	Common name	Volume of sales	AqWRA score	USDA lowest hardiness zone	Provinces Regulating	US Federal and States Regulating or Watching Taxa
<i>Eichhornia crassipes</i>	Water hyacinth	32633	81	6	MB	AL, AR, AZ, CA county regulated, CO watch list, LA, MN regulated, MS, NE, PR, SC, TX, City of Chicago, WI
<i>Pistia stratiotes</i>	Water lettuce	16374	72	7	MB	AL, CA county regulated, CO watch list, FL, LA, MS, PR, SC, TX, WI
<i>Cabomba caroliniana</i>	Cabomba, Fanwort	6146	67	6	AB, MB, ON-R, SK	CA, CT, ID, MA, ME, MI, MN regulated, NH, NY, PR, VT, WA, WI,
<i>Egeria densa</i>	Brazilian waterweed	5144	71	5	AB, MB, ON-P, SK	AL, CA, CO watch list, CT, ID, IL, IN, LA, MA, ME, MI, MN regulated, MS, MT regulated, NE, NH, NY, OH, OR, PR, SC, VT, WA, WI
<i>Myriophyllum aquaticum</i>	Parrot feather	4107	75	5	MB, ON-P	AL, CA county regulated, CO, CT, ID, IL, IN, MA ,ME, MI,MN regulated, MT regulated, NE, NH, NY, OH, OR, VT, WA, WI, PR
<i>Iris pseudacorus</i>	Yellow flag iris, Yellow water iris	2935	58	4	AB, MB, SK	CO watch list, CT, ID, IL, IN, MA, MD, MN regulated, MT, NY, OR, VT, WA, WI restricted,
<i>Hygrophila polysperma</i>	Dwarf hygrophila	2017	53	9		FED; CA, FL, IL, IN, LA, MA, MN, OK, OR, VT, WI, WV

Marson, D., Cudmore, B., Drake, D. A. R., & Mandrak, N. E. (2009). Summary of a survey of aquarium owners in Canada. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2905, and Summary of a survey of water garden owners in Canada. Canadian Manuscript Report of Fisheries and Aquatic Sciences 2906, Fisheries and Oceans Canada.

Azan, Shakira Stephanie Elaine, "Invasive aquatic plants and the aquarium and ornamental pond industries" (2011). Theses and dissertations. Ryerson. Paper 818.





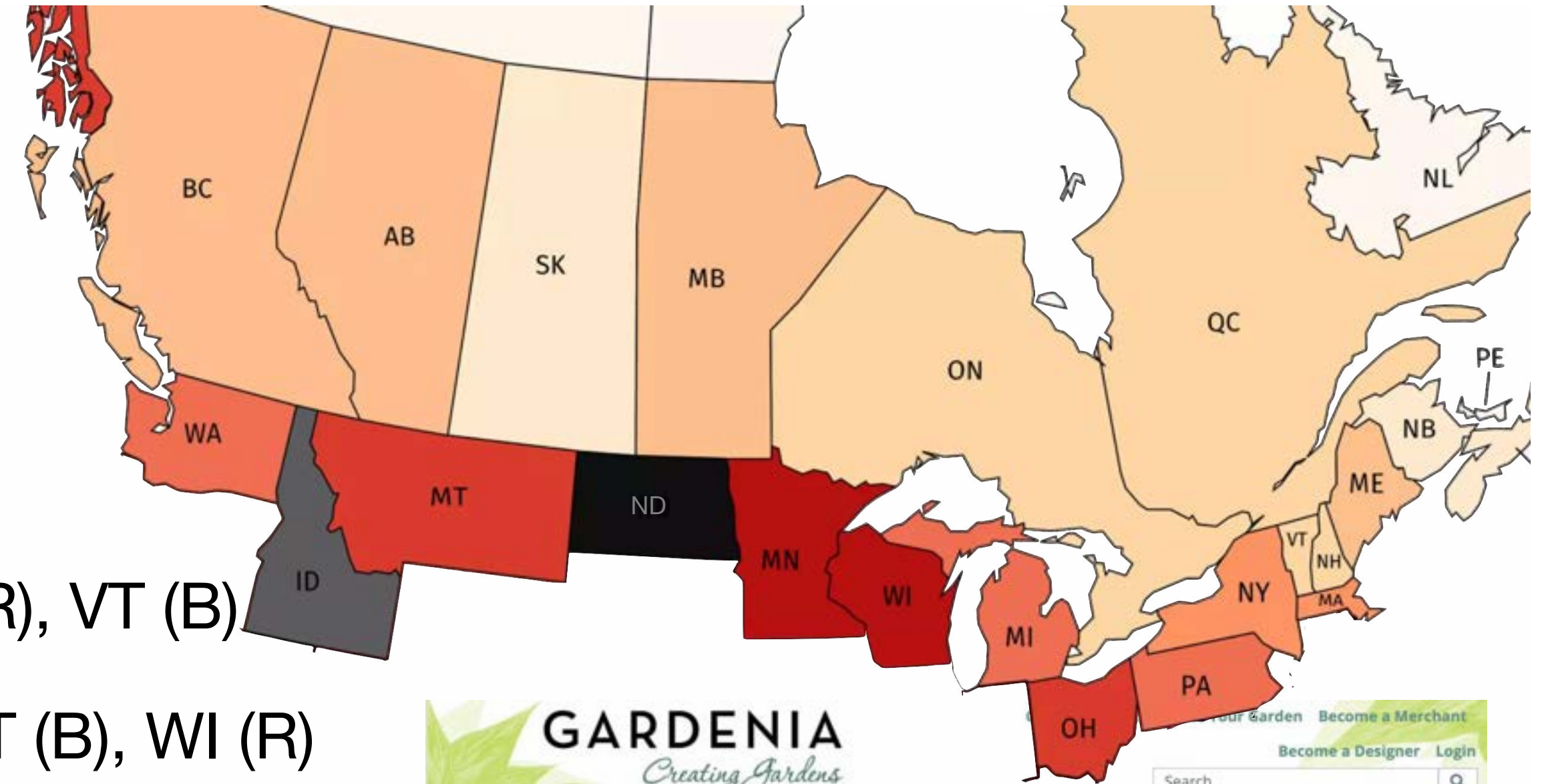
**In general, Canada's legislative framework on IAS is fragmented, and this complicates the development of a coordinated approach to the problem.**

**Smith, Andrea & Bazely, Dawn & Yan, Norman. (2013). Are legislative frameworks in Canada and Ontario up to the task of addressing invasive alien species? Biological Invasions.**



# US States are Becoming Active Prohibiting and Restricting plants in the Trade

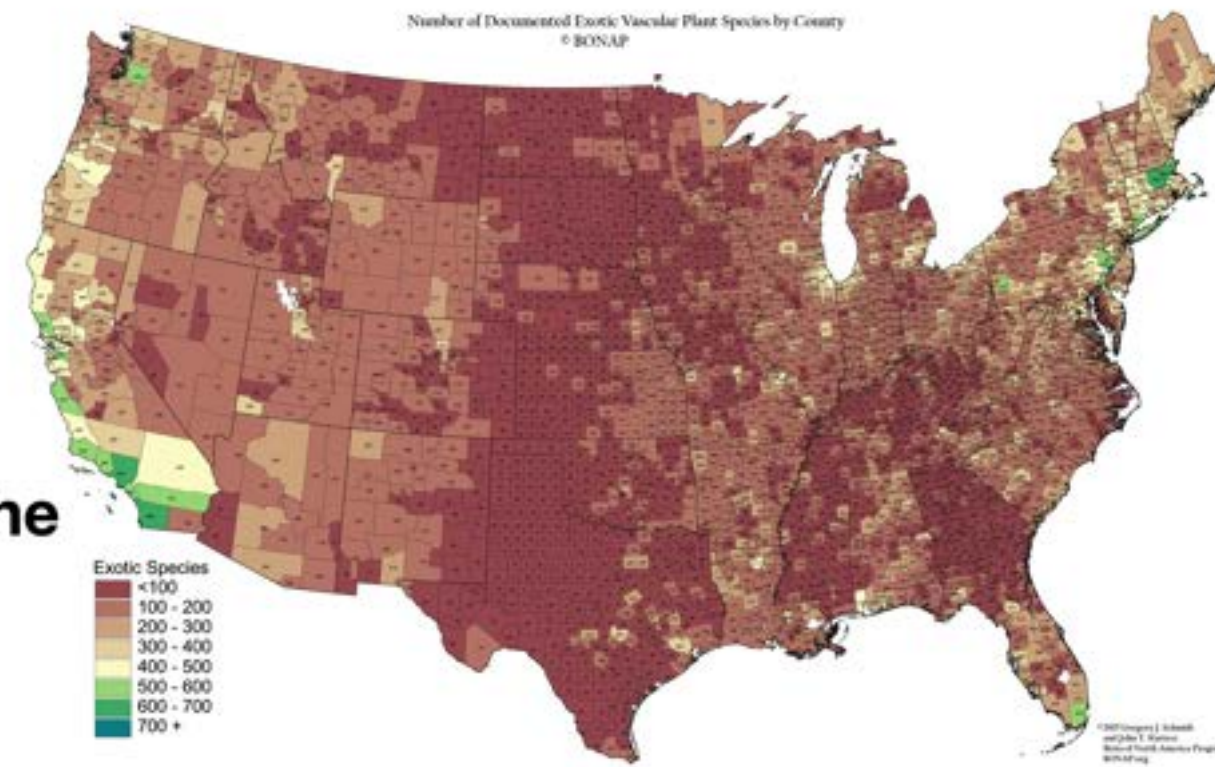
- **Amur maple** (*Acer ginnala*) ME (P), VT (B), WI (R)
- **Norway maple** (*Acer platanoides*) ME (P), NH, NY (R), VT (B)
- **Goutweed** (*Aegopodium podagraria*) ME (P), OH, VT (B), WI (R)
- **Asiatic bittersweet** (*Celastrus orbiculatus* *C. loeseneri*) ME, MN (E), NH, NY (P), OH, PA (B), VT (B), WI (R)
- **Burning bush** (*Euonymus alatus*) ME (P), NH, NY (R), VT (B), WI (R)
- **Yellow iris** (*Iris pseudacorus*) AB (P), BC (N), MB (Aq), ME (P), MT, NH, NY (P), OH, VT (B), WA (C), WI (R)
- **Bush honeysuckle** (*Lonicera japonica*) ME (P), MN, NH, NY (P), OH, VT (B), WI (P)



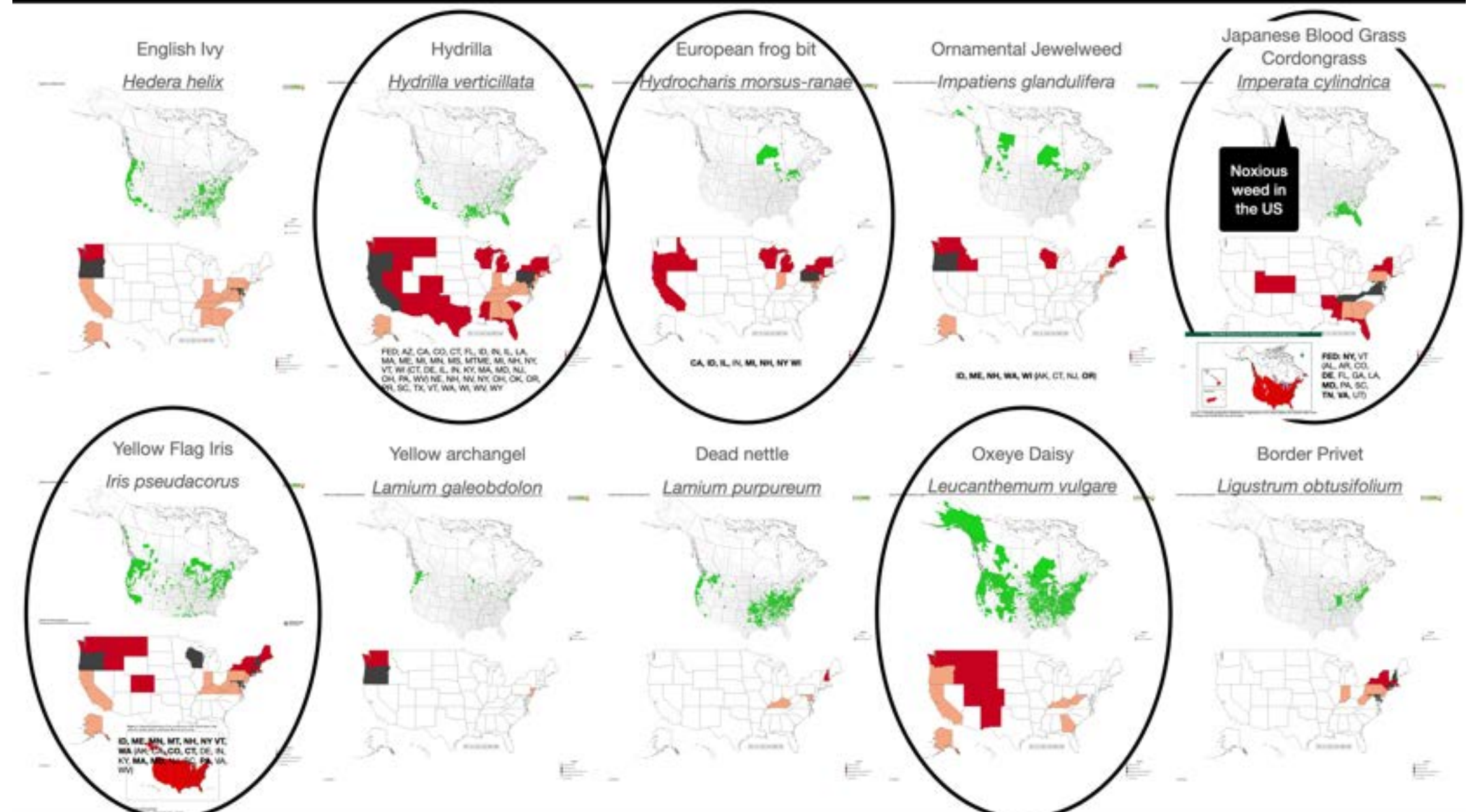
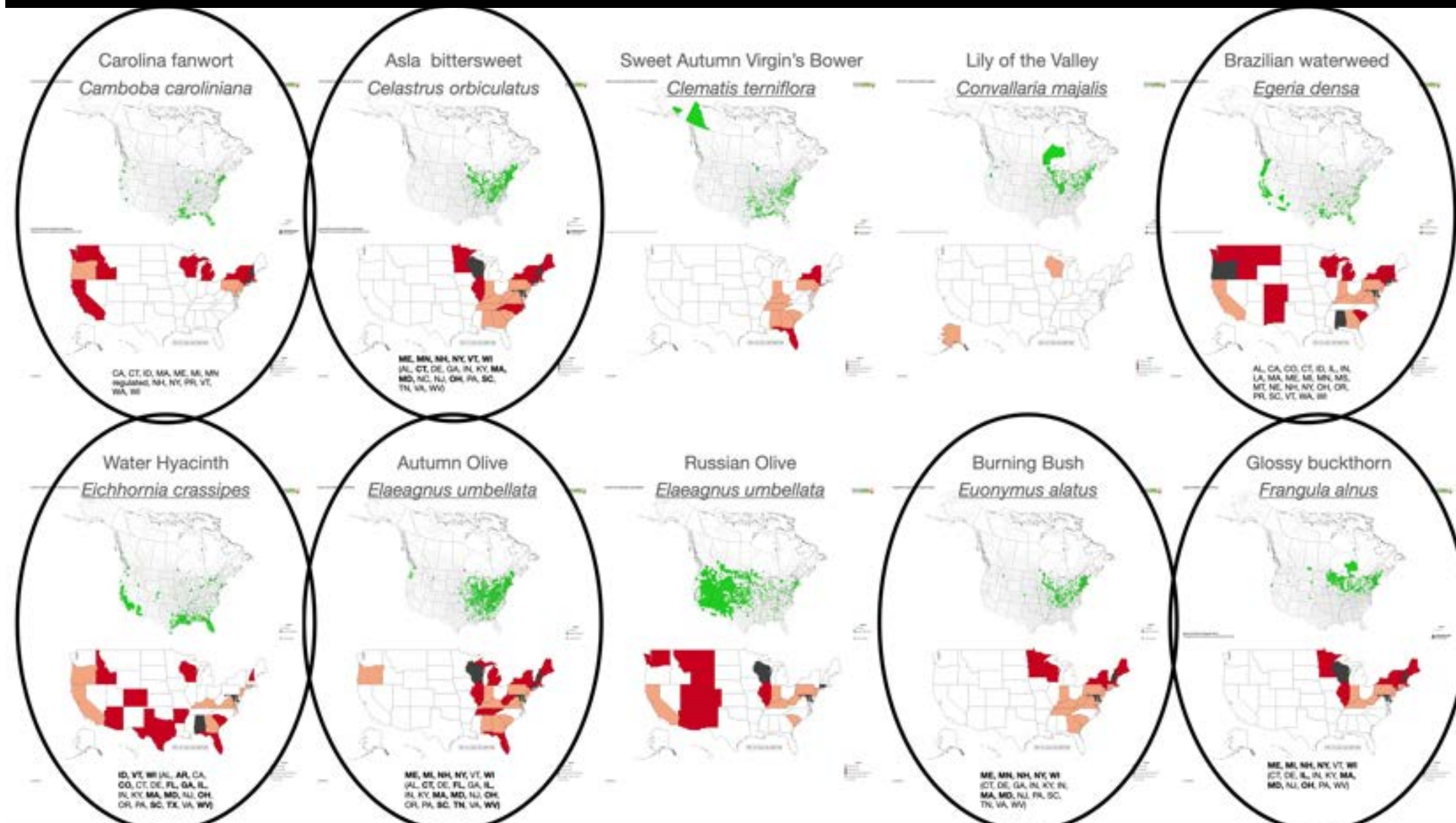
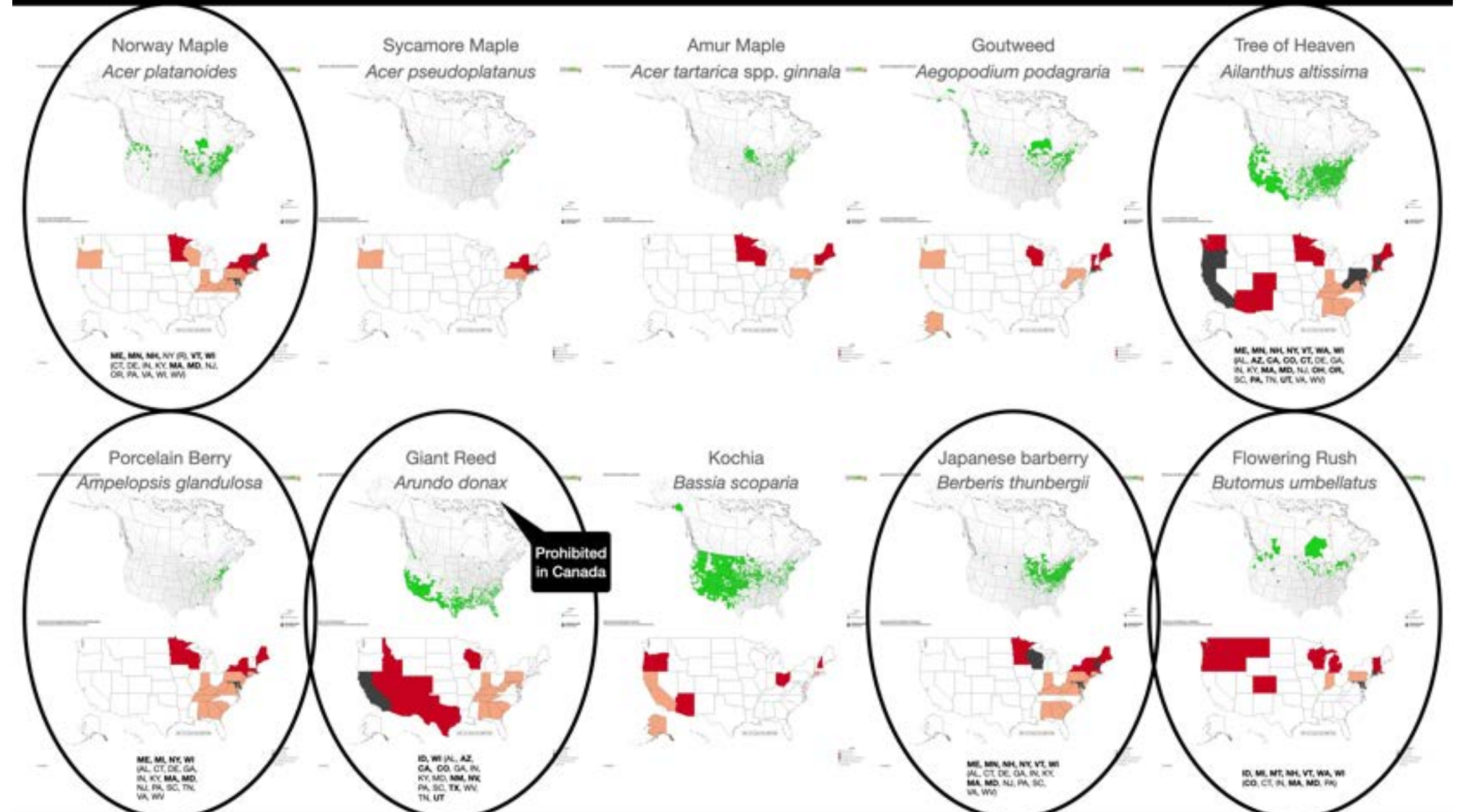


# Invasive Species

## Mapping Regulations in the United States



This map shows documented exotic plant species, but some jurisdictions do not document plants well so this is not a true indication of the spread of exotic species, just an indicator of potential trouble spots.






Oriental Bittersweet,  
several Bush  
Honeysuckles, White  
mulberry, Periwinkle, ...

# Priority Invasive list

## Credit Valley Conservation

<https://cvc.ca/wp-content/uploads/2011/07/11-150-priorityinvasives-11-list-web.pdf>



## CVC Priority Invasive Plants

### LEGEND : Utilized Habitats

**UF** Upland forest; tableland forest types with mostly dry to fresh soils  
**FF** Floodplain forest; generally lowland forest types with fresh to moist soils  
**W** Wetland; includes swamp, marsh, and aquatic communities  
**MS** Meadow and Successional; includes meadow, woodland, savannah and prairie

\* Note that scientific nomenclature and common names may vary across literature. To compound this situation many species listed below have horticultural variants which cause further confusion for readers of this list. For this reason readers should be aware of these cautions and speak to a knowledgeable professional or CVC staff when dealing with any species that shares either the same genera as a species listed here or a similar common name.

List based on the original SER Ontario Invasive species list, Invasive Exotic Species Ranking for Southern Ontario. © Urban Forest Associates Inc., January 2002.

SCIENTIFIC NAME	COMMON NAME	UTILIZED HABITATS			
		PRIMARY	SECONDARY	TERTIARY	
<b>CATEGORY 1 - Transformers</b>					
Species that exclude all other species and dominate sites indefinitely. Plants in this category are a threat to natural areas wherever they occur because they tend to disperse widely (for example, through transport by birds or water). They are the top priority for control but control may be difficult. Upon detection, immediate removal is recommended. Potential for spread into other areas must also be controlled.					
<i>Acer negundo</i>	Manitoba maple	FF	UF	MS	
<i>Aegopodium podagraria</i>	Goutweed	FF	UF	MS	
<i>Alliaria petiolata</i>	Garlic mustard	UF	FF	MS	
<i>Alnus glutinosa</i>	Black alder	W	FF		
<i>Butomus umbellatus</i>	Flowering rush	W			
<i>Celastrus orbiculatus</i>	Oriental bittersweet	MS	FF	UF	
<i>Cynanchum nigrum</i>	Black swallow-wort	MS	UF	FF	
<i>Cynanchum rossicum</i>	Pale swallow-wort	MS	UF	FF	
<i>Glyceria maxima</i>	Rough manna grass	W	FF		
<i>Heracleum mantegazzianum</i>	Giant hogweed	W	FF		
<i>Hesperis matronalis</i>	Dames rocket	FF	MS		
<i>Hydrocharis morsus-ranae</i>	European frog-bit	W			
<i>Impatiens glandulifera</i>	Himalayan balsam	W	FF		
<i>Lonicera japonica</i>	Japanese honeysuckle	UF	FF	MS	
<i>Lonicera maackii</i>	Amur honeysuckle	UF	FF	MS	
<i>Lonicera morrowi</i>	Morrow's honeysuckle	UF	FF	MS	
<i>Lonicera tatarica</i>	Tartarian honeysuckle	UF	FF	MS	
<i>Lonicera x bella</i>	Hybrid honeysuckle	UF	FF	MS	
<i>Lonicera xylosteum</i>	European fly honeysuckle	UF	FF	MS	
<i>Lythrum salicaria</i>	Purple loosestrife	W			
<i>Morus alba</i>	White mulberry	UF	FF	MS	
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	W			
<i>Nymphoides peltata</i>	Floating heart	W			
<i>Phragmites australis</i>	Common reed	W			
<i>Polygonum cuspidatum</i>	Japanese knotweed	W	FF		
<i>Potamogeton crispus</i>	Curly pondweed	W			
<i>Rhamnus cathartica</i>	Common buckthorn	UF	FF	MS	
<i>Vinca minor</i>	Periwinkle	UF	FF	MS	

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[www.creditvalleyca.ca](http://www.creditvalleyca.ca)



# Minnesota

More

Management

Less

- Eradicate List
- Control List
- Restricted Noxious Weed
- Specially regulated  
Can be sold but must be planted where it does not pose a risk

Minnesota

MN Statute Section 18.75-18.88

<https://www.revisor.mn.gov/statutes/cite/18.75>

Eradicate



Oriental bittersweet - must be eradicated

**All but regulated are prohibited for sale**

Control



Barberry - must be controlled/  
can not be sold

Restricted



Buckthorn - can not knowingly be spread

Regulated



Amur maple - may be sold, but rules limit the use



# New York

## 75 plant species prohibited or regulated

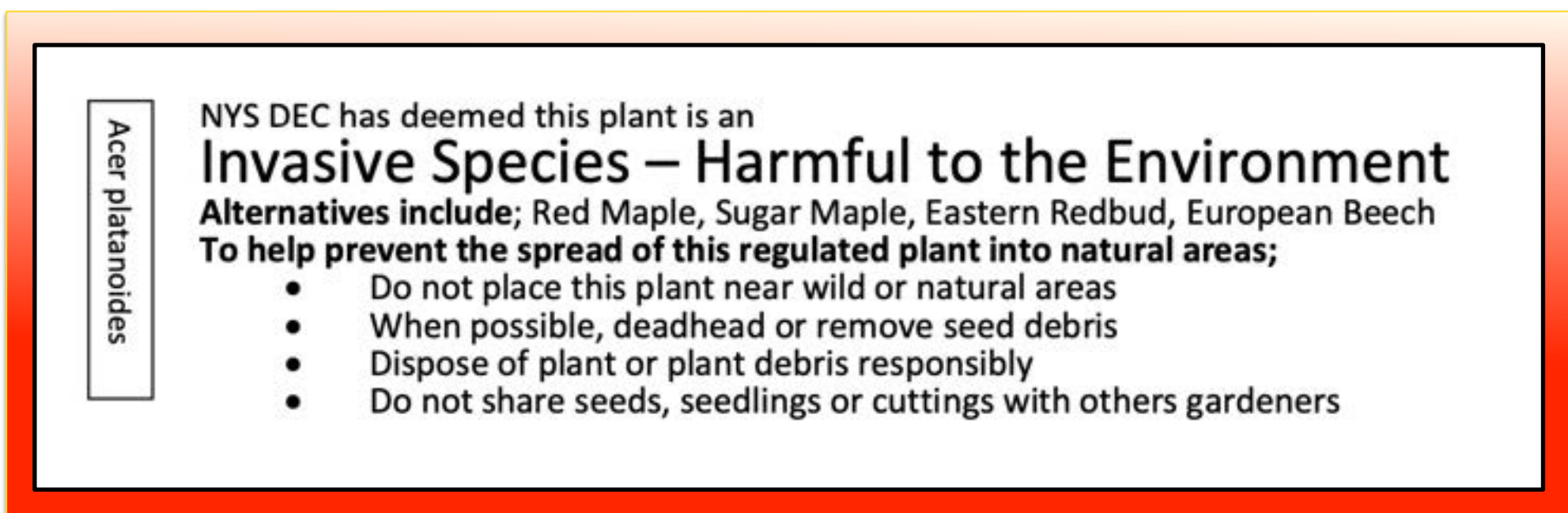
- Prohibited invasive species cannot be knowingly possessed with the intent to sell, import, purchase, transport or introduce.
- Regulated invasive species, require labels and cannot be knowingly introduced into a free-living state...
- Labels - at least 14 point font with the warning: **Invasive Species - Harmful to the Environment.**

### Prohibited Plants include:

*Berberis thunbergii*, Japanese Barberry  
*Celastrus orbiculatus*, Oriental Bittersweet  
*Elaeagnus umbellata*, Autumn Olive  
*Iris pseudacorus*, Yellow Iris  
*Ligustrum obtusifolium*, Border Privet  
*Lonicera japonica*, *L. maakii* etc, Asian Honeysuckles  
*Phyllostachys aurea*, Golden Bamboo  
*Rosa multiflora*, Multiflora Rose

### Regulated Plants include:

*Acer platanoides*, Norway Maple  
*Clematis terniflora*, Japanese Virgin's Bower  
*Euonymus alatus*, Burning Bush  
*Euonymus fortunei*, Winter Creeper  
*Miscanthus sinensis*, Chinese Silver Grass  
*Robinia pseudoacacia*, Black Locust





# Maine

## Prohibits 33 species

## 63 pending public review

“We have had two requests so far to exempt cultivars or hybrids. One was for the Rudy Haag variety of *Euonymus alatus*, which was granted to one nursery to sell off the stock that had been planted in their field a couple years before the rules made the plants illegal to sell and the other was for three hybrid varieties of triploid *Berberis thunbergia*. That petition was held up until field research could be done by the University of Maine to see if the plants produced viable seed or not. The research presented to the ad hoc committee was incomplete and we needed more data on seed viability.

We monitor compliance through nursery inspections at all licensed plant sellers and by monitoring on-line sales as best we can.”

Gary Fish  
State Horticulturist  
Maine Department of Agriculture, Conservation and Forestry

### Invasive Plants



On this page: [Rules](#) [Plant List](#) [What Are Invasive Plants?](#)  
[Alternatives to Invasive Plants](#) [Invasive Plant Rule Review](#)

culture, Conservation and Forestry r  
restrial Plants (DOC), prohibits the s  
ained to meet the invasive plant crite  
ect on January 14, 2017 and the pro

scribes a five-year review of the list  
began the review process by asser  
assisting in reviewing the rule and a  
n the list. [More Information](#)

7-287-7545 or email [gary.fish@maine.gov](mailto:gary.fish@maine.gov)

to import, export, buy, sell or intentio  
n includes all cultivars, varieties and

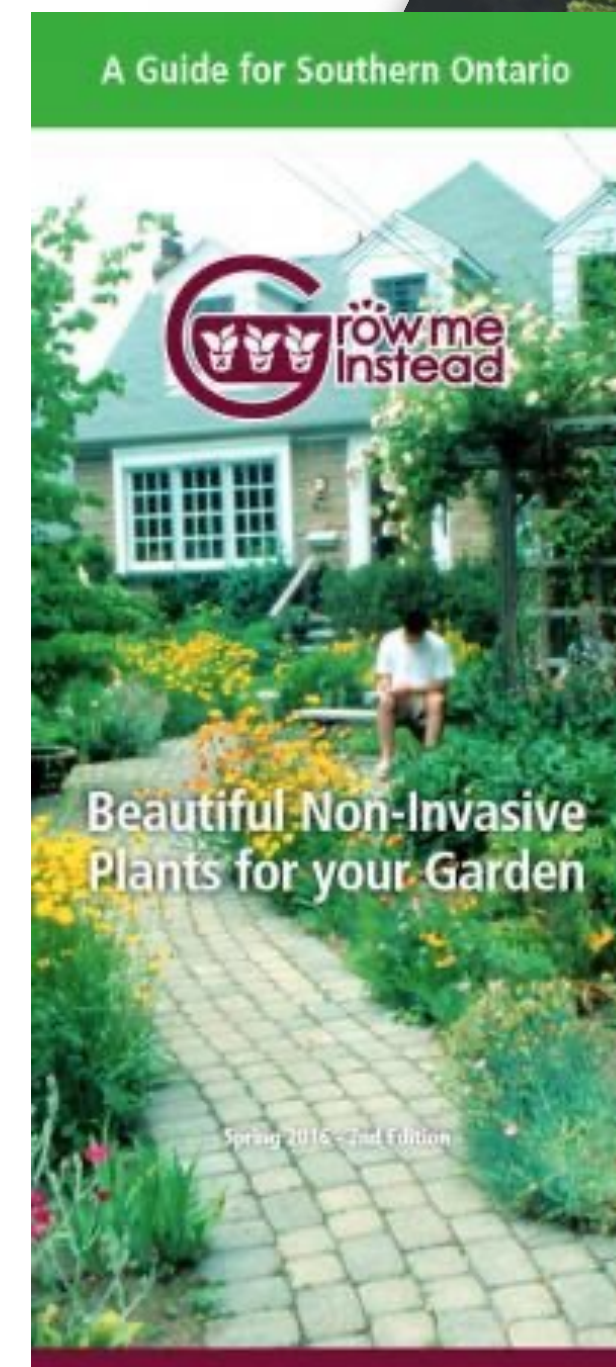
Invasive Terrestrial Plants Prohibited From Sale In Maine											
Widespread Distribution In Maine				Limited Distribution In Maine				Unknown Distribution In Maine			
Norway Maple ( <i>Acer platanoides</i> )	Garlic Mustard ( <i>Alliaria petiolata</i> )	Amur Maple ( <i>Acer ginnale</i> )	Bishop's Weed ( <i>Agropodium podagraria</i> )	Parrotia Berry ( <i>Amelopsis glandulosa</i> )	Norway Maple ( <i>Acer platanoides</i> )	Garlic Mustard ( <i>Alliaria petiolata</i> )	Amur Maple ( <i>Acer ginnale</i> )	Bishop's Weed ( <i>Agropodium podagraria</i> )	Parrotia Berry ( <i>Amelopsis glandulosa</i> )	Norway Maple ( <i>Acer platanoides</i> )	Garlic Mustard ( <i>Alliaria petiolata</i> )
Japanese Barberry ( <i>Berberis thunbergii</i> )	Asiatic Bittersweet ( <i>Calystegia orbiculata</i> )	Tree of Heaven ( <i>Ailanthus altissima</i> )	False Indigo Bush ( <i>Amorpha fruticosa</i> )	Chinese Broomrape ( <i>Fallopia baldschuanica</i> )	Japanese Barberry ( <i>Berberis thunbergii</i> )	Asiatic Bittersweet ( <i>Calystegia orbiculata</i> )	Tree of Heaven ( <i>Ailanthus altissima</i> )	False Indigo Bush ( <i>Amorpha fruticosa</i> )	Chinese Broomrape ( <i>Fallopia baldschuanica</i> )	Japanese Barberry ( <i>Berberis thunbergii</i> )	Asiatic Bittersweet ( <i>Calystegia orbiculata</i> )
Autumn Olive ( <i>Elaeagnus umbellata</i> )	Winged Euonymus ( <i>Euonymus alatus</i> )	Common Mugwort ( <i>Artemisia vulgaris</i> )	Common Barberry ( <i>Berberis vulgaris</i> )	Japanese SSB Grass ( <i>Miscanthus sinensis</i> )	Autumn Olive ( <i>Elaeagnus umbellata</i> )	Winged Euonymus ( <i>Euonymus alatus</i> )	Common Mugwort ( <i>Artemisia vulgaris</i> )	Common Barberry ( <i>Berberis vulgaris</i> )	Japanese SSB Grass ( <i>Miscanthus sinensis</i> )	Autumn Olive ( <i>Elaeagnus umbellata</i> )	Winged Euonymus ( <i>Euonymus alatus</i> )
Japanese Knotweed ( <i>Fallopia japonica</i> )	Glossy Buckthorn ( <i>Fraxinus alnus</i> )	Cypress Spurge ( <i>Euphorbia cyparissias</i> )	Common Privet ( <i>Ligustrum vulgare</i> )	Pawlonia ( <i>Paulownia tomentosa</i> )	Japanese Knotweed ( <i>Fallopia japonica</i> )	Glossy Buckthorn ( <i>Fraxinus alnus</i> )	Cypress Spurge ( <i>Euphorbia cyparissias</i> )	Common Privet ( <i>Ligustrum vulgare</i> )	Pawlonia ( <i>Paulownia tomentosa</i> )	Japanese Knotweed ( <i>Fallopia japonica</i> )	Glossy Buckthorn ( <i>Fraxinus alnus</i> )
Dense's Buckthorn ( <i>Hesperis matronalis</i> )	Yellow Iris ( <i>Iris pseudacorus</i> )	Japanese Honeysuckle ( <i>Lonicera japonica</i> )	Amur or Bush Honeysuckle ( <i>Lonicera maackii</i> )	Mile a Minute Weed ( <i>Persicaria perfoliata</i> )	Dense's Buckthorn ( <i>Hesperis matronalis</i> )	Yellow Iris ( <i>Iris pseudacorus</i> )	Japanese Honeysuckle ( <i>Lonicera japonica</i> )	Amur or Bush Honeysuckle ( <i>Lonicera maackii</i> )	Mile a Minute Weed ( <i>Persicaria perfoliata</i> )	Dense's Buckthorn ( <i>Hesperis matronalis</i> )	Yellow Iris ( <i>Iris pseudacorus</i> )
Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )	Tatarian Honeysuckle ( <i>Lonicera tatarica</i> )	White Cottonwood ( <i>Populus alba</i> )	Ornamental Jewweed ( <i>Impatiens glandulifera</i> )	Amur Cork Tree ( <i>Phellodendron amurense</i> )	Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )	Tatarian Honeysuckle ( <i>Lonicera tatarica</i> )	White Cottonwood ( <i>Populus alba</i> )	Ornamental Jewweed ( <i>Impatiens glandulifera</i> )	Amur Cork Tree ( <i>Phellodendron amurense</i> )	Morrow's Honeysuckle ( <i>Lonicera morrowii</i> )	Tatarian Honeysuckle ( <i>Lonicera tatarica</i> )
			Report Findings of These Plants at: <a href="http://www.invasiveplants.org">www.invasiveplants.org</a>				Find these invasive plant pictures and more at: <a href="http://www.bugwood.org">www.bugwood.org</a>				
Purple Loosestrife ( <i>Lythrum salicaria</i> )	Black Locust ( <i>Robinia pseudoacacia</i> )	Multiflora Rose ( <i>Rosa multiflora</i> )	Report Findings of These Plants at: <a href="http://www.invasiveplants.org">www.invasiveplants.org</a>				Find these invasive plant pictures and more at: <a href="http://www.bugwood.org">www.bugwood.org</a>				



# Our objectives:

to protect our land and water from invasive plant species with the creation of:

- Effective pre- and post-border invasive species risk assessments;
- Bans on the sale and movement of **high risk** invasive plant species;
- Labeling to identify and educate the public about **lower-risk** invasive plants;
- A verifiable industry-wide Code of Conduct;
- Public education including alternatives to invasive plants (e.g. *Plant Wise*; *Grow me Instead*).





**To protect our economy, environment and public health from invasive plant species, we need:**

- Effective pre- and post-border invasive species risk assessments;
- Bans on the sale and movement of **high risk** invasive plant species;
- Labeling to identify and educate the public about **lower-risk** invasive plants;
- A verifiable industry-wide Code of Conduct;
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Invasive Species	Canada has deemed this plant is an
	<b>Invasive Species – Harmful to the Environment</b>
	<b>Alternatives include: ...</b>
	To help prevent the spread of this regulated plant into natural areas:
	<ul style="list-style-type: none"><li>• Do not place this plant near wild or natural areas</li><li>• When possible, deadhead or remove seed debris</li><li>• Dispose of plant or plant debris responsibly</li><li>• Do not share seeds, seedlings or cuttings with others gardeners</li></ul>



# How can you help?

Be a partner and help spread the word.

- Public opinion influences policy.
- **Numbers matter.** We need to identify the organizations and individuals who support the need for a better regulatory process.
- We need help making connections.
- Add your voice and commit to prevent the spread of invasive plants in Canada.
- Visit [CCIPR.ca](http://CCIPR.ca) and sign up.







*Thank you to our  
Supporters and Partners*



Beausoleil First Nation



Urban Forest Associates







**Together  
we can  
heal the  
planet**

