

Grow Me Instead:

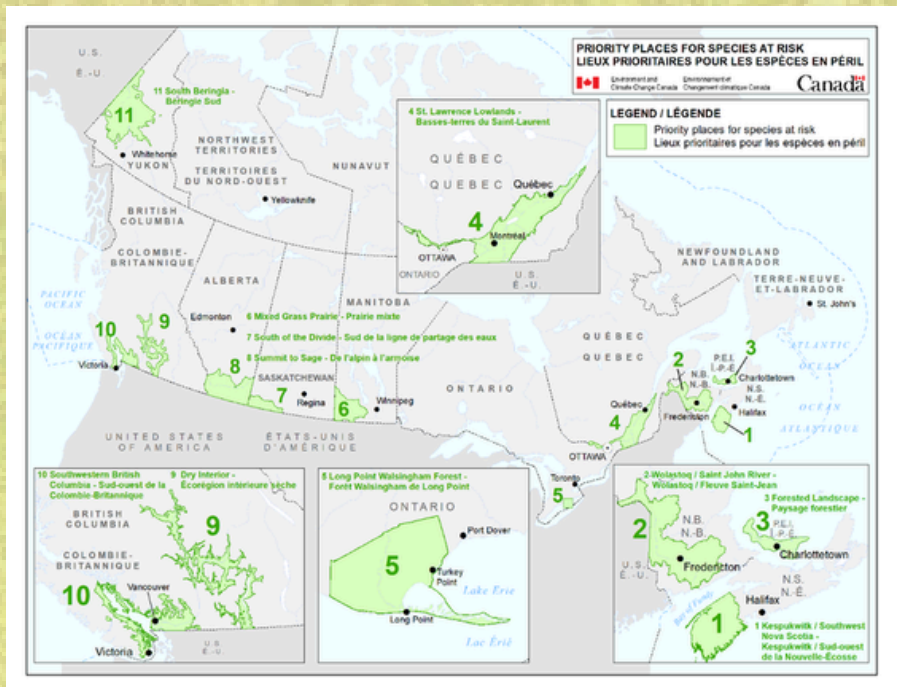
Prince Edward Island

Native and Non-invasive Alternatives to Invasive Plant Species



PEI FORESTED LANDSCAPE PRIORITY PLACE FOR SPECIES AT RISK

The Forested Landscape Priority Place for Species at Risk (PEI FLPP) was established to streamline Canada's approach to effectively conserving habitats for biodiversity and species at risk. This approach is multi-species and ecosystem-based. Work is collaborative, with an emphasis on implementation. There are 11 priority places identified in Canada. Priority places are one way that the Government of Canada is implementing the Pan-Canadian approach to transforming species at risk conservation in Canada. See the map to the right to view the priority places that have been identified by provincial, territorial and federal governments.



Priority Places for Species at Risk in Canada, Government of Canada

A priority place is an area of high biodiversity value that is seen as a distinct place with a common ecological theme by the people who live and work there. PEI's forested landscape is one of the 11 chosen sites, and forested uplands, forested wetlands, riparian forests, coastal forests, and krummholz were identified as forest conservation targets.

Invasive species can have dramatic effects on each of these forest conservation targets identified by the PEI FLPP. The PEI Invasive Species Council (PEIISC) shares the goal of protecting these areas on PEI and is grateful to be a partner on this project.

ACKNOWLEDGEMENTS

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PEIISC staff would also like to thank Beth Hoar, co-chair, for her oversight during the design process, native plant recommendations, and for supplying photographs featured throughout the guide. Photos provided by Beth are copyrighted by Green Thumb Photography. These photos are marked with an asterisk (*) where featured. Other photographs were taken by PEIISC staff, past and present. Finally, many photos are sourced online, all of which are from the public domain or under the Creative Commons Zero license unless otherwise attributed.

Additionally, the PEIISC would like to highlight the support of other Invasives Canada Chapters and Invasive Species Councils in Canada and the U.S. who have undertaken such endeavours in the past.

Finally, the PEIISC would like to recognize the support of PEI's horticulture & landscaping industry, who have been great partners in stopping the spread of invasive species.

ABOUT THE PEIISC

Established in 2007 and staffed since 2021, the Prince Edward Island Invasive Species Council (PEIISC) is a non-profit group of individuals and organizations focused on the creation of a framework for the management of invasive species that threaten Prince Edward Island's environmental, economic, and social health.

Our council has representatives and sources expertise from federal, provincial, and municipal governments, the University of Prince Edward Island, local conservation organizations, businesses, and the community at large.

Our Roles:

- Assemble the views of a broad range of experts from various levels of government, educational institutions, and the community at large on the management of invasive species.
- Provide leadership, expertise, and advice on the management of invasive species on PEI.
- Foster awareness and understanding of invasive species issues on PEI.
- Serve as a respected repository and source of credible information and resources on invasive species in PEI and disseminate this information effectively.
- Identify gaps in existing knowledge required for effective planning and implementation of invasive species management on PEI.
- Liaise and partner with other groups and agencies working on invasive species, including, but not limited to, government agencies, invasive species councils, and non-governmental organizations.
- Identify potential funding opportunities to further the Council's work.
- Encourage the public, governments, and industry to become active in the prevention, detection, and, where appropriate, the eradication of invasive species.

Visit our website to learn more about our team and to view a compendium of invasive species relevant to PEI: <https://peiinvasives.com/>.

CONTACT THE PEIISC

By email:

- peiinvasives@gmail.com

On Facebook

- <https://www.facebook.com/PEIinvasives>

On Instagram

- <https://www.instagram.com/peiinvasives/>

On our website

- www.peiinvasives.com



WHAT IS A NATIVE SPECIES?

A native species is any species living in the area where it is naturally found. They are not introduced. Native plants are beneficial members of the ecosystem and offer beauty, support wildlife, and are well-suited for PEI's climate.

WHAT IS AN INVASIVE SPECIES?

An invasive species is any species that meets the following three criteria: 1) It has been introduced outside of the area where it is naturally found, 2) it spreads rapidly, and 3) the species causes some kind of notable harm to the environment, the economy, or human health/community practice.

ARE ALL NON-NATIVE SPECIES INVASIVE?

No! A 2024 study by Pfadenhauer and Bradley in the Ecological Society of America's journal *Ecological Applications* indicated that, on average, around 20% of introduced species become invasive globally, and a rate of 11.1% of non-native organisms become invasive when introduced to Canada and the Northeastern United States. A great example of a beneficial non-native species is the potato, which brings a lot to the table and to our economy while having no direct negative impacts.

CAN A NATIVE SPECIES BE INVASIVE?

No! By definition, an invasive species must be non-native, that is, introduced into an area where it is not naturally found. A native species causing issues for people is simply known as a pest, weed, or disease. An example of this is poison ivy: problematic at times, but still a beneficial member of our native plant community.

HOW DO INVASIVE SPECIES GET AROUND?

Invasive species move by using what are known as "pathways of invasion". These pathways are essentially various means by which an invasive species may travel. The pathways are generally divided into intentional and unintentional introductions. According to the Canadian Food Inspection Agency's *Invasive Alien Plants in Canada – Summary Report*, 58% of invasive species in Canada are thought to have been intentionally introduced. Of these intentionally introduced species, over half were introduced for ornamental purposes. A 2021 study by Culley et. al, *The potential role of public gardens as sentinels of plant invasion*, indicated that 89% of woody invasive plants, 65% of invasive vines, and 31% of invasive herbaceous plants were introduced for ornamental purposes.

WHY IS IT IMPORTANT TO PLANT NATIVE SPECIES?

Planting native species that have developed distinct and balanced relationships within the local ecosystem over millennia allows for these connections to strengthen and supports the integrity of the natural world. Native wildlife depend on these connections to survive and thrive. By planting native, you are reintegrating your property into the ecosystem, creating valuable habitat for species already present and encouraging other native species to make your property their home.

HOW YOU CAN HELP

Preserve

- Patches of forest are often connected through tracts of natural areas known as wildlife corridors. They provide animals with the shelter they need to move between areas to find the resources necessary for their survival. Protecting these wildlife corridors on your land can help increase the success of vulnerable species.
- The provincial government and partner organizations (e.g., Island Nature Trust, Nature Conservancy of Canada, Ducks Unlimited) can assist you if you are interested in preserving your property using provincial legislation such as the Natural Areas Protection Act or the Wildlife Conservation Act.

Behaviour Changes

- Stay on trails, when possible, as many native plants are highly sensitive to trampling. Where trampling occurs, hardening and compaction of the soil may also inhibit the spread of root systems. Herbaceous, woody, and grass-like plants are particularly sensitive to trampling, and after being trampled, are shown to have reduced size and height.
- Enter natural areas with clean clothing, shoes, and gear. Invasive species are excellent hitchhikers! Plants use several strategies to move to new areas. One such technique is known as phoresy, which is when a seed travels on the body of another, using adaptations such as hooks, barbs, and spines.
- Buy and burn local firewood to avoid transporting invasive insects and diseases over large distances. Visit our PEIISC Don't Move Firewood website to learn more and see a map of commercially available firewood on PEI.

Restore

- Promoting the growth of diverse native plant communities is an excellent way to improve the ecosystem's resilience to an invasive species infestation. Collectively, six species account for 82% of our Island's native tree diversity: red maple, *Acer rubrum*; white birch (paper birch), *Betula papyrifera*; black spruce, *Picea mariana*; white spruce, *Picea glauca*; trembling aspen, *Populus tremuloides*; balsam fir, *Abies balsamea*.

USING THIS GUIDE

This guide is designed by the Prince Edward Island Invasive Species Council (PEIISC) for use by PEI residents who are interested in replacing known invasive plants with native and non-invasive alternatives. Alternatives to invasive plants suggested here are selected to offer similar characteristics to their invasive lookalikes/relatives. Characteristics of concern include habitat suitability, ecological function, human uses, taxonomic/genetic relations, and commercial availability. All plants are native to the Wabanaki/Acadian/Hemlock-Hardwood forest (see next page for more information on this ecosystem).

While this guide does not offer an exhaustive list of physical or growth characteristics a grower would require to ensure successful planting, it offers summary guidance and descriptions of the plant species recommended. It does not provide exhaustive or detailed information on the removal of the highlighted invasive plant species, and guidance for that undertaking should be sought in other PEIISC resources or resources from other reputable sources. We advise against seeking information from forums and social media. The PEIISC also welcomes the reader to reach out to us directly with concerns, comments, questions, and suggestions. As this is the first edition of this guide, we welcome recommendations for additions, deletions, and changes.

ABOUT THE WABANKAI-ACADIAN FOREST REGION

Prince Edward Island is part of the Wabanaki-Acadian Forest Region (AFR), which is one of the eight distinct forest regions in Canada. It is located between the boreal and northern deciduous forests; it is a transitional forest featuring tree species from both the northern boreal and southern deciduous forests. The World Wildlife Fund has recently classified the Wabanaki-Acadian Forest Region as endangered due to the extensive destruction of habitat that has occurred since European colonization. While some Wabanaki-Acadian tree species have been reduced in abundance, the forest still dominates the landscape, and no tree species has been eliminated yet. In PEI, our forested landscapes have faced dramatic changes that still impact them today.

PEI's forests are fragmented. Forest fragmentation means forested patches are disconnected from each other. Forest disturbance can occur naturally, but the leading cause of fragmentation is a result of man-made disturbances like roads, housing, and agriculture. Forest plants that become exposed along these edges are subject to higher levels of light, winds, and temperatures. These microclimate shifts change the habitat suitability for certain species. Fragmented forests also endure increased pressure from invasive species, since invasives are usually better adapted to thrive in disturbed habitats.

Boreal forest tree species are overrepresented in PEI forests. The Boreal Forest naturally experiences more frequent large-scale disturbances (e.g., fire) than the Wabanaki-Acadian Forest, resulting in boreal species being better adapted to these large-scale disturbances and less suited for our changing climate. These trees are less resilient than the historical Wabanaki-Acadian Forest mixed stands and are therefore weaker overall to wind, disease, and pests. As our climate changes, these species are likely to be heavily affected, and their collapse will leave gaps in our already fragmented landscape.

Due to historic land use and management, our forests are relatively young. This younger forest makeup creates microclimates that are exposed to higher light conditions, temperatures, and lower air moisture. Historically, our forests would be dominated by large patches of old-growth species, as large-scale natural disturbances are rare in this region. These old-growth, ecologically mature forests were excellent habitats for our native species, and many species have suffered from the sudden shifts of these habitats. Today, less than 1% of old-growth forests remain in the Wabanaki-Acadian Forest Region.

With these existing pressures, it is especially important to prevent invasive species from establishing in the Wabanaki-Acadian Forest. Invasive species have their own set of pressures on a forest that compound existing issues and harm our ecological, social, and economic well-being. They:

- Result in the loss of culturally important medicine plants and food.
- Slow down tree growth, kill trees, and reduce the quality of lumber and harvests. Forest pests destroy about 400,000 ha of forest every year in Canada, which is slightly less than half of the 930,000-ha harvested annually by the forest industry.
- Result in lost income, infrastructure damage, and recreational opportunities.
- Restrictions on and reductions in commercial activities and related income (sale of products, taxes, etc.) are other impacts produced by forest pests.
- Result in considerable investments being made towards regulatory controls, scientific monitoring of introduced pests, reforestation, sanitary measures, and, of course, prevention.
- Result in the loss of habitat for our native species.

Read more about the Wabanaki-Acadian Forest on Macphail Woods Ecological Forestry Project's website: <https://macphailwoods.org/resources/the-wabanaki-acadian-forest>

ABOUT SPECIES RANKS

In Atlantic Canada, species abundance is ranked provincially by the Atlantic Canada Conservation Data Centre (ACCDC). From the ACCDC website:

Species Ranks

The AC CDC maintains comprehensive provincial lists of plant and animal species, with a conservation status rank (S-rank) and legal status for each species in each province (with Newfoundland and Labrador treated separately for ecological reasons). Species' conservation status is assessed in collaboration with other experts. AC CDC maintains S-ranks for all terrestrial vertebrates, vascular plants, bryophytes (mosses and related plants), macrolichens, and for many invertebrate groups. As of June 2024, our databases have provincial ranks for over 21,900 species, subspecific taxa, and ecological communities. Lists are organized by jurisdiction and by taxonomic group.

Sub-national (provincial) ranks (S-ranks)

Conservation Data Centres and NatureServe use existing information and expertise for ranking species rarity or conservation status. Ranks help them identify gaps in knowledge for species for which element occurrence data are maintained; typically, information is maintained for species ranked critically imperiled (S1) to vulnerable (S3) in given jurisdictions. Individual CDCs are responsible for developing sub-national ranks for their area. The AC CDC works with provincial and federal experts to develop rarity ranks for species in each of the following provinces: New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland & Labrador. Factors considered when ranking include: number of element occurrences, distribution, population size, abundance trends, and threats.

Sub-national element rank definitions

The following definitions refer to species and community ranks at sub-national (provincial) levels. Sub-national ranks are specific to a province. Therefore, a species that is common (S4) in New Brunswick could be ranked as extremely rare (S1) in Prince Edward Island.

- **S1:** Critically Imperiled - Critically imperiled in the province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines, making it especially vulnerable to extirpation from the province.
- **S2:** Imperiled - Imperiled in the province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the province.
- **S3:** Vulnerable - Vulnerable in the province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
- **S4:** Apparently Secure - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- **S5:** Secure - Common, widespread, and abundant in the province.

REPORTING INVASIVE SPECIES

Early detection and rapid response are critical to stopping the spread of invasive species. You can help detect and locate new infestations of invasive species, particularly those capable of significant environmental, economic, or social harm.

If you see a plant that looks 'out of place', a notable plant disease, or an insect you don't recognize and have concerns about, we encourage you to report it. Invasive species tend to pop up in areas that we frequent – like dog walking trails and local parks, or along roadsides and in ditches. Basically, anywhere we go, invasive species might come too, so taking extra precautions and reporting what you see are great ways to help.

How to report invasive species

Reporting invasive species is the simplest way to support invasive species management efforts across PEI. PEIISC staff is small, so we rely on public support to keep track of invasive species in the landscape. You can report invasive species by the following methods.

What should be included in an invasive species report

An invasive species report must include these components to be fully useful: 1) What you think you found, 2) Where you found it, 3) When you found it, and 4) clear, detailed images of what you found and its environment.

iNaturalist



iNaturalist.ca and the iNaturalist app on Android or iPhone is a highly accessible and easy way to identify and share invasive species observations. The iNaturalist community is filled with experts whom you can connect with. Download the app or visit the website on your computer and make an account. Add a new observation that includes as much information as you can furnish. Upload your observation and tag @peiisc for a rapid assessment by PEIISC staff.

EDDMapS - Early Detection and Distribution Mapping System



EDDMapS.org and the EDDMapS app provide another way to report invasive species directly to the PEIISC. Download the app or visit the website and make an account. Record your observation and include as much information as you can furnish. Upload your observation and it will be sent directly to PEIISC staff, who will verify the report and suggest relevant actions to take.

Reach out directly

If you are interested, you can report to the PEIISC directly by the following means:

- Email: peiinvasives@gmail.com
- Facebook: www.facebook.com/PEIInvasives
- Instagram: [@peiinvasives](https://www.instagram.com/peiinvasives)

RESPONSIBLE GARDENING PRACTICES

Horticulture is a significant pathway for the introduction and spread of invasive species on PEI and across North America. Several of the invasive species causing damage in our natural areas on PEI first arrived here for use in gardens, with many still widely sold and planted today. Horticultural plants, including flowers, grasses, trees, shrubs, ferns, and nonvascular plants, are valued and selected for their aesthetic beauty and growing conditions. However, some species, when they escape containment, can become invasive in an ecosystem. To protect PEI's natural resources, wildlife, beauty, and ecosystem services, it is crucial that invasive species are not purchased, imported, planted, or introduced.

How They Spread

In a garden setting, invasive plants may seem contained to their beds or pots. You may not see them growing out of place around your property, but plants have evolved to reproduce and spread. Plants can move to new areas beyond our control in a variety of ways. Invasive plants can be spread over long distances by wind, water, pets, and wildlife. Invasive plants may also move into new areas through contaminated soil, compost that contains plant parts, or when garden waste is dumped in a natural area.

Impacts

- **Environmental Impacts:** Invasive horticultural plants can fundamentally alter PEI's ecosystems by displacing native plant species, reducing biodiversity, and harming wildlife that depend on native plants for food and shelter. They can also alter soil chemistry, water flow, and nutrient cycling, which further destabilise the ecosystem. Biodiversity is important: avoid planting monocultures!
- **Forestry Impacts:** Invasive horticultural plants can affect the forestry industry by directly competing with forest crops, introducing pests, and interfering with forest regeneration. Invasive groundcovers, such as periwinkle, can dominate the forest understory and limit the germination of tree seedlings and other plants.
- **Agricultural Impacts:** Invasive plants can cause issues in an agricultural context by reducing yields and increasing management costs for farmers. Some invasive horticultural plants can harbor diseases that affect particular crops. For example, common barberry was an ornamental plant that has been prohibited from sale due to its role as the host plant for black stem rust, a devastating disease in cereal crop production.
- **Horticulture Industry Impacts:** The importation of plant stock can be a risk to the horticulture industry itself. Bringing in plants from off-island presents the risk of introducing invasive pests and diseases, which may be hosted in the soil or on the plant itself. A good example of this is the recent introduction of box tree moth which arrived on imported boxwood shrubs from Ontario.

Native Plants

Choosing to plant native species in your garden is usually the best choice. Native plants are an essential part of PEI's ecosystem, providing food and habitat for birds, bees, butterflies, and other wildlife. Incorporating native species into your garden contributes to local biodiversity, ensuring these creatures have the resources they need to thrive. Native plants are also a part of our Island's unique character and heritage, reflecting the beauty of PEI's landscapes and offering an authentic aesthetic that blends with our natural environment. By choosing native plants for your garden, you can create a stunning outdoor space and contribute to the health of the local ecosystem! To purchase native plants, look out for plants with the PEIISC native plant tag. To learn more about the native or non-native status of plants you might find on PEI, refer to the Atlantic Canada Conservation Data Centre's provincial conservation ranks listings.

RESPONSIBLE GARDENING PRACTICES

Seed Mixes

Wildflower seed mixes often contain invasive species. Gardeners are usually unaware of this because even if they read the information provided on the outside of the seed packet, the package usually contains very little information about which plant species are actually inside. When information is provided, it is often inaccurate and generally not very specific. Instead of purchasing wildflower seed mixes for your garden, try buying single-species seed packets that are labelled properly with common names AND scientific names. That way, you can ensure you know exactly what you are getting and can determine whether the plants are native or non-invasive and suited to the area where they are planted.



Recommended Best Practices

- Plant only native or non-invasive species.
- Do not dump any garden waste in natural areas.
- Dispose of invasive plants with your garbage (black waste bin, or directly to a disposal depot) only. Never dispose of invasive plants in the compost (green bin). Bag plant material in clear plastic bags and label the bags 'Invasive species' with a permanent marker. Set the bags out with your regular residential black waste bin pick-up. Larger amounts can be brought to an Island Waste Management Corp. disposal facility, or the PEI Energy Systems incinerator on Riverside Drive, Charlottetown, with a special waste permit <https://www.princeedwardisland.ca/en/information/environment-energy-and-climate-action/special-waste-disposal-permit>. For these loads, there is an associated disposal fee based on weight provided at the disposal depot.
- Manage, control, and remove invasive plant species from your gardens.
- If you must keep invasive species, keep them contained to your garden bed, and remove and dispose of any seeds or berries annually. Cut the flowers off as they die back, but before they produce seed. If berries are the attractive part of the plant, remove them before they disperse their seed or are picked off by local wildlife. Dispose of all plant material in the garbage as described above.

Plant Shopping on PEI

At most garden centres across PEI, you will see a mix of native, exotic, and invasive plants for sale. Typically, these options are not labelled as such, and it is the customer's responsibility to do their own research on their selections before making a purchase. Before you purchase a plant, be sure to:

- Research the species using its scientific name (if available) to find out if it's invasive. Many exotic plants go by various common names, which may not return accurate search results.
- Check the plant and its soil for pests and diseases of concern. Sometimes the plant itself may not be an invasive species, but things hitchhiking along with the plant may be!
- Ask the staff about the plant and where it was sourced from. Plants coming from off-island can present a higher risk of bringing new 'hitchhiking' insects or pathogens along with them.
- Look for plants with the PEIISC native plant tag to be sure you are buying a plant native to Prince Edward Island.



RESPONSIBLE SEED AND PLANT COLLECTION

Make your own seed cards and seed bombs by using only native species. Collecting seeds is a fun pastime and is a great way to connect with nature! Mark interesting native plants through the summer, as this is when they are most identifiable, and check back at the end of their growing season to collect seed. For best results, use species that have suitable growing conditions to maximize success. Ensure that when you gift your final product, you list the species' scientific name(s) on the packaging.

Collect seeds and plants responsibly:

- Do not disturb or collect from imperiled species (S2 or S1). View conservation status rankings listed by the Atlantic Canadian Conservation Data Center before gathering, if you are unsure.
<http://www.accdc.com/en/ranks.html>
- Do not collect from small populations of plants. If a population is secure, the general rule is to leave populations with 7 or fewer plants alone.
- Leave enough behind for other wildlife and for the plant to propagate future plants.
- Be sure of species ID, as many invasive species can be mistaken for native species.
- Avoid trampling plants.
- Clean your cutting tool between locations.
- Do not trespass.

Native species suggestions for seed cards:

- Common winterberry, *Ilex verticillata*
- Common bonset, *Eupatorium perfoliatum*
- Joe-pye weed, *Eutrochium maculatum*

Native Species suggestions for seed bombs:

- Seaside goldenrod, *Solidago sempervirens*
- Hairy flat-top white aster, *Doellingeria umbellata*
- Staghorn sumac, *Rhus typhina*
- Hawthorn, *Crataegus spp.*
- Northern bayberry, *Myrica pensylvanica*
- Sweet gale, *Myrica gale*
- + species mentioned for seed cards



Seaside goldenrod,
Solidago sempervirens



Hairy flat-top white aster,
Doellingeria umbellata



Northern bayberry,
Myrica pensylvanica



Be careful not to bring home any pests or diseases! Avoid sick looking plants.

PRUNING AND INVASIVE SPECIES

Proper Pruning Prevents Pest and Disease Spread!

Did you know that by using proper sanitation measures and pruning techniques, you can help prevent the spread of harmful invasive pests?

Sap flow resulting from pruning activities (wounds) and damage to trees can attract harmful invasive insects to the tree. When the tree is cut, the damage serves as a beacon for pest insects to find their way to the pruned tree.

So what can you do to prevent this? By **pruning during the winter**, when the tree is dormant and pests are inactive, you can avoid the risk of attracting invasive, disease-carrying or wood-boring insects to your tree. When the tree is dormant, it does not exude sap like it would if cut during its active growing season, reducing the likelihood of attracting pests. Using proper pruning techniques and the right tools for the job can help improve tree structure and promote recovery, resilience, and healing. Note that not all pruning can be done during the dormant season.

Pruning elm trees only between September 30th and April 1st can prevent the spread of Dutch elm disease (DED). This is a bylaw requirement in the city of Charlottetown, where pruning outside of this window is unlawful. DED is spread from tree to tree by the elm bark beetle, which is inactive during this period, reducing the chance of spread.

DED (along with many other diseases) can also be spread from tree to tree when pruning equipment is not properly sanitized between cuts. **By sanitizing pruning equipment between cuts you can help prevent the spread of invasive fungal diseases from tree to tree through the future use of a contaminated tool.**

DED and the small elm bark beetle are not the only things that can be spread through improper pruning techniques. Oak wilt, European larch canker, and more can also be spread by this pathway.

For these reasons and more, pruning your trees during periods of dormancy and cold temperatures can be helpful in preventing the spread of invasive species. Add these considerations to your future pruning plans to keep your trees healthy! Happy pruning!



Purple Loosestrife

Lythrum salicaria

This aggressive, invasive perennial plant is the only plant whose movement is prohibited by provincial law, specifically by the Weed Control Act. Its impacts on wetland ecosystems across North America have been devastating, as its prolific seed production allows it to rapidly colonize an area and displace native species. If you have this growing on your property, it is your legal responsibility to remove the plant and prevent its spread. Remove the plant by digging up its root system and properly disposing of the whole plant.

Steeplebush, *Spiraea tomentosa*

Habitat suitability: Meadows, urban areas, freshwater wetlands.

This tall herbaceous shrub has similar colouration (pink-purple), size (2-4ft), and inflorescence shape to purple loosestrife. Steeplebush blooms around the same time as purple loosestrife, from July to September. Inhabits similar conditions and prefers wet areas just like purple loosestrife. Requires moist, acidic soils to thrive. Large flower clusters attract and support a variety of native pollinator species.

Photo credit: Stephen G. Johnson, Wikimedia Commons, CC BY-SA 3.0



Fireweed, *Chamaenerion angustifolium*

Habitat suitability: Meadows/fields, yards, freshwater wetlands, woodland.

This perennial plant gets its name from its ability to rapidly colonize an area after disturbances like fire. Spreads rapidly by rhizomes and seeds in suitable growing conditions (full-partial sun, moist-mesic and well-drained soil). The plants can grow quite tall, typically 1-6 feet, but occasionally reach heights of up to 9 feet. Its beautiful flowers attract a variety of pollinators and bloom from June to September.



Blue Vervain, *Verbena hastata*

Habitat suitability: Swamps, marshes, bogs, wet meadows/fields, banks

An extremely rare plant on PEI, ranked as S1 (critically imperilled) by the Atlantic Canada Conservation Data Centre. By planting it, you are providing critical habitat to this scarce species. It prefers moist areas, but it is reportedly drought-tolerant. Prefers full sun but can tolerate partial shade. Large clusters of blueish-purple flowers bloom from July to September and support a large variety of native pollinator species. Seeds that form in the fall provide an excellent food source for wildlife.





Invasive Roses

Rugosa Rose, Hansa Rose, *Rosa rugosa* (1); Multiflora Rose, *Rosa multiflora* (2)

Despite their beauty, some rose species that have been introduced to PEI have become invasive, displacing native plant life and altering ecosystem character. Multiflora rose was initially introduced for use as both a hedgerow plant and an ornamental plant. Rugosa rose has been planted for use as both an ornamental plant and a plant that stabilizes erosion. Multiflora rose predominantly invades fields, meadows, forest edges, and stream/river banks. Rugosa rose is especially suited to coastal areas, but it can also grow inland. Our native rose species can provide beauty, soil stability, and privacy too!

Carolina Rose, *Rosa carolina*

Habitat suitability: Meadows/fields, coastal, woodland, disturbed sites

Our rarest native rose species, designated S2S3 (vulnerable-imperilled) by the Atlantic Canada Conservation Data Centre. This rose is highly versatile and perfectly suited to our climate on PEI. It tolerates a wide range of soil conditions, from dry to wet-mesic, although it prefers acidic, sandy soil. The plant prefers full sun but will tolerate partial shade. It is drought and salt-tolerant, making it a great plant for tricky areas like the coastline or hedge. Its deep roots can stabilize soil and reduce erosion.



Virginia Rose, *Rosa virginiana*

Habitat suitability: Meadows/fields, coastal, woodland, disturbed sites

Our most common native rose species, perfectly suited to our Island climate. Its appearance is very similar to that of the Carolina rose. It is more salt-tolerant than Carolina rose and offers similar levels of erosion control, making it the perfect pick for a coastal property. Like other native rose species, Virginia rose will support a wide variety of pollinators and wildlife, reintegrating your property into the ecosystem.



Shining Rose, *Rosa nitida*

Habitat suitability: Swamps, bogs, stream edges, gardens

Seeking to add a bit of colour and beauty to a wetter property? This is the rose species for you. While this plant prefers wetland habitats in the wild, it is extremely cold-hardy and tolerant of a wide range of soil conditions, making it a highly versatile selection for the home gardener. Its sweet-scented flowers and glossy foliage are sure to catch the eye. As with the other rose species, shining rose blooms in the summer for around a month, and will support both wildlife and pollinators





(Bishop's) Goutweed (Ground Elder)

Aegopodium podagraria

A groundcover in the purest sense, this species has been specifically selected to carpet the soil surface and suppress unwanted growth in a garden setting. Unfortunately, this same capacity to prevent unwanted growth in a garden setting can suppress native plant growth where it escapes into natural areas. While in gardens the leaves are often variegated for looks, when it escapes into the wild, it will usually revert to its non-variegated form. Like other carrot family members, it has umbrella-shaped flower clusters. The plant is difficult to remove once established, but control can be achieved through cutting and covering.

Canada Anemone, *Anemone canadensis*

Habitat suitability: Woodland clearings and edges, wet meadows/fields, stream/river banks. This distinctive ground cover with beautiful foliage will both suppress the growth of unwanted plants in a garden setting and behave well if it escapes into a natural area. The plant is ranked as S1 (critically imperiled) on PEI, and your yard can provide critical habitat for this rare plant. The plant blooms early, from April to June. It grows best in full sun to partial shade and thrives in a wide variety of soil types. It prefers moist soil but is moderately drought-tolerant. Up to 50cm tall.



Bunchberry (Creeping Dogwood), *Cornus canadensis*

Habitat suitability: Woodlands, woodland edges, forested wetlands, bogs
A groundcover with a preference for shady areas, this is one of the most common woodland plants on PEI and is well-suited to our soils & climate. It has a preference for moist soils and is best planted as an understory plant below other plant layers. Each individual has 1-2 whorled layers of 4 or 6 leaves. Early summer blooms of white flowers turn to clusters of red berries that give the plant its name. Leaves turn wine-red in fall.



Howell's Pussytoes, *Antennaria howellii*

Habitat suitability: Disturbed areas, cliffs, meadows/fields
On PEI, there are four distinct subspecies of this plant of varying rarity. This woolly, white-flowered groundcover has a similar colour profile and function to goutweed, but is a native species and does not carry the same risk of invasion. It can rapidly fill up gaps in your garden when it spreads by stolons. This species is well-suited to dry soils and is highly drought-tolerant. Prefers full sun. Blooms from April to June. Best planted in poor soil, may have trouble competing in good soil.

Photo by user mickeydj on iNaturalist, licensed under CC BY-NC 4.0.





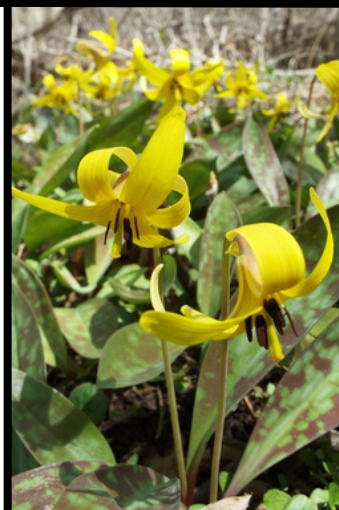
Lily-of-the-valley (European)

Convallaria majalis

Introduced groundcover plants often become invasive, and this plant is no exception! Like others of its kind, this species is valued for its ability to suppress unwanted plant growth in a garden. This same ability can suppress native plants when it escapes into a natural area. In areas where this plant is well-established, other plant growth can be completely excluded. Additionally, this plant is highly toxic to animals (especially cats) and can thus pose a threat to pets and wildlife. It is extremely difficult to control once established, but smothering is the most effective removal tactic. It is particularly invasive in woodlands.

Yellow Trout Lily, *Erythronium americanum*

Habitat suitability: Woodland, forest edges, forested wetlands, stream banks, shade beds. Once thought to have been extirpated on PEI, this plant was rediscovered with the help of some old high school herbarium records. Today, the plant is ranked as S1 (critically imperilled) by the Atlantic Canada Conservation Data Centre. With its distinctive yellow flowers and mottled red-green leaves, this plant can add a splash of colour to your property. The plant thrives in moist soils and partial shade (not full shade). It is considered a spring ephemeral and blooms from April to May.



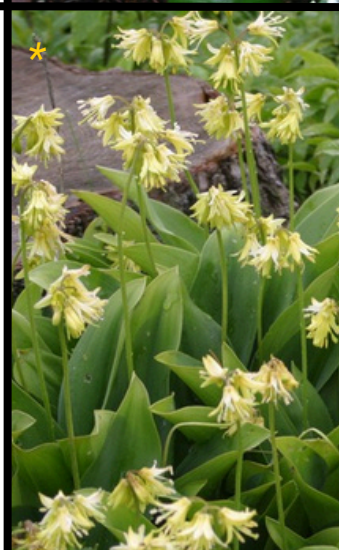
Wild Lily-of-the-valley (Canada Mayflower), *Maianthemum canadense*

Habitat suitability: Woodland, forested edges, forested wetlands, bogs, swamps, shade beds. An excellent choice for a woodland or shade garden, this perennial prefers moist, acidic soils. It benefits from a cover of leaves or needles in the winter. It is very similar in appearance to the invasive lily of the valley with its white flowers and two-leaved structure, although it is much daintier. In the fall, the plant produces red-brown berries that provide a great food source for birds and small mammals.



Blue Bead Lily, *Clintonia borealis*

Habitat suitability: Woodland/forest edges/forested wetlands, shade beds
Do you have a cool, shady place on your property where sun-loving plants have a difficult time? Blue bead lily could be the answer to your troubles. This shade-loving perennial has a preference for cool, moist, acidic soils. It blooms with yellow-green flowers in May and June, and later in the summer produces blue berries that give the plant its common name. The foliage is similar to its invasive lookalike in shape and size, but the leaves are glossy and thicker. Benefits pollinators and wildlife.





Invasive Maples

Norway Maple, *Acer platanoides* (1); Manitoba Maple, *Acer negundo* (2); Sycamore Maple, *Acer pseudoplatanus*

Many are surprised to hear that maple trees can become invasive species in Canada. Seeding out from urban plantings, the maple species above have become invasive on PEI, invading natural areas and displacing native species. These invasive maples do not offer the same nutritional or habitat benefits that native maples do, meaning that they not only impact plant communities but also the wildlife depending on them. Below are examples of beneficial native maples!

Sugar Maple, *Acer saccharum*

Habitat suitability: Woodland, properties with low compaction/salt levels

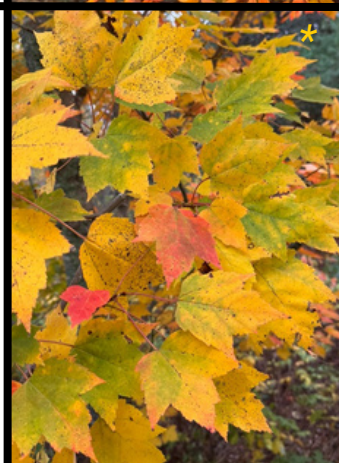
Sugar maple is the native maple species most similar in structure and size to Norway maple. This large, tall, long-lived tree requires a balanced soil moisture level and is intolerant of extreme drought or flooding. It prefers slightly acidic, well-drained soil. This species does not do well in constricted urban settings and needs room to grow. It is highly beneficial to birds & wildlife as a nutrient source and as shelter. For humans, this tree is prized for the production of maple syrup, tools, and furniture.



Red Maple, *Acer rubrum*

Habitat suitability: Swamps, woodland, urban areas, forested wetlands

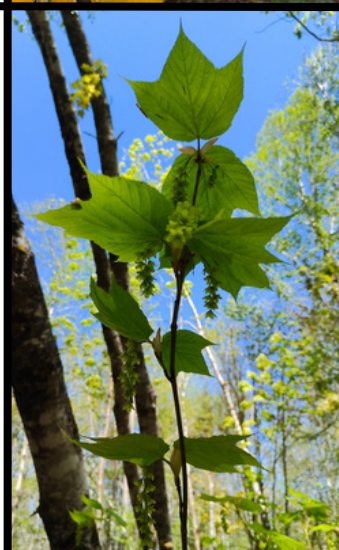
Red maple is better suited to urban and residential environments than sugar maple. Supporting birds, wildlife, and pollinators alike, this moisture-loving maple will nevertheless tolerate a wide range of soil conditions and habitats. Its tolerance of wet conditions makes it a great substitute for Manitoba maple. In the fall, it lives up to its name, sporting beautiful red colours.



Striped Maple (Moose Maple), *Acer penslyvanicum*

Habitat suitability: Woodlands, forested wetlands, stream/river banks

Looking for a shade-tolerant tree to bolster the diversity of your woodland property? Striped maple is an ideal choice. This tree has perhaps the most beautiful bark of any native tree, and gives striped maple its common name. It has unique, pendulous flower clusters that form in May and June, and large leaves that support herbivores and give the tree its alternative common name, moose maple. This tree thrives in rich, moist, well-drained, sandy/loamy, and acidic soils.





Periwinkle

Vinca minor

This evergreen groundcover is unfortunately ideally suited to forest floors on PEI. A historic planting has spread to cover hundreds of square meters of space in Strathgartney Provincial Park. The PEIISC is currently working to slow its progress and ensure a future for the ecosystem. It carpets the ground, preventing most other plant life from growing. Since this plant cannot spread by seed, garden dumping is the most common method of spread. If you are removing periwinkle, smother it to kill it, and ensure you dispose of it properly.

Large & Small Cranberry, *Vaccinium macrocarpon* & *V. oxycoccos*

Habitat suitability: Bogs, swamps, marshes, fens, banks, coastal

This low-growing, creeping plant is the progenitor of the modern cultivated cranberry. This means planting these species can lead to significant snacking when berries are produced in late Summer to early Fall. It usually takes a few years of establishment before cranberries begin to be produced. Berries start as green, turn white, and finally red when ripe. Before berries, it produces nodding pinkish-white flowers that give the plant its original common name, Craneberry. Prefers wet, acidic, peaty soils with part shade. Difficult to transplant, but can be done with diligence.



Creeping Juniper, *Juniperus horizontalis*

Habitat suitability: Coastal, open dry areas, rocky areas

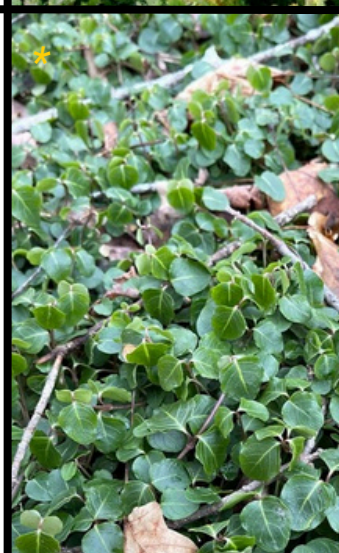
Looking for a periwinkle replacement in a sunnier area? Look no further. For coastal property owners, this will likely prove to be an ideal ground cover. It thrives in dry, sunny areas with sandy or rocky soil, as are found all along our Island's coast. Despite the abundance of potential habitat, its distribution on PEI remains quite limited, ranked as S2S3 (vulnerable-imperilled). Add a splash of evergreen colour to the landscape and expand the range of a rare plant. Berry-like cones will provide additional beauty and food for wildlife.



Partridgeberry, *Mitchella repens*

Habitat suitability: Woodlands, stream banks, shade beds, forest edges

Rounding out our evergreen groundcover recommendations is another rare plant, ranked as S1 or critically imperilled in the province by the Atlantic Canada Conservation Data Centre. Despite this, reports say it can be quite simple to start a new patch on your property. It is tolerant of dry or moist soil, but prefers consistent moisture, and can grow in acidic or normal pH soil. Prefers rich, well-drained soils. Beautiful white flowers bloom in early summer, followed by showy red berries to feed wildlife.





Creeping Jenny

Lysimachia nummularia

One of the most commonly sold groundcover species in the province to this day, this is a favorite for use in hanging baskets and for the suppression of unwanted plant growth. Like other groundcovers, this benefit becomes an issue when introduced into natural areas. The plant is also known by the alternative common names creeping yellow loosestrife and moneywort (because its leaves look like coins). Do you have this plant in your yard? You can suppress its growth by smothering it with a tarp to prevent photosynthesis.

Nodding Trillium, *Trillium cernuum*

Habitat suitability: Woodlands, shade gardens, thickets

This shade-loving perennial gets its name from its nodding flowers that bloom in the springtime. They hang down below the leaves, which are in a beautiful triangular arrangement. In the summer, the flowers wither, and a bright red fruit is produced. Nodding trillium readily spreads once established and can completely carpet an area, though seedlings need time to develop before blooming. Prefers moist, acidic soils that are rich and have a strong fungal presence. Cover with leaves in winter.



Downy Yellow Violet, *Viola pubescens*

Habitat suitability: Rich woodlands with dappled light, meadows/fields, floodplains. Another uncommon plant, ranked S2S3 (vulnerable-imperilled) by the Atlantic Canada Conservation Data Centre. Grows in clusters that expand over time in suitable habitats. It tolerates a wide range of moisture levels (dry to moist) and prefers shade or partial shade. Grows best in loose loamy or sandy soil. If you love plants, its heart-shaped leaves will show some love back to you!



Common Silverweed, *Potentilla anserina*

Habitat suitability: Woodlands, streambanks, dunes, coastal, disturbed sites, wetlands, wet meadows.

Despite it being considered a weed by some, this beautiful, silvery-leaved groundcover offers beautiful foliage and lovely yellow flowers. For those living near PEI's coast or estuaries, this plant is notably tolerant of salt. Blooms from June to September, offering beauty and pollen all summer. Thrives in full sun, but tolerates part shade. Prefers average to moist soil. Tolerates most soil types and pH levels, making it highly versatile.





Himalayan Balsam

Impatiens glandulifera

This plant has spread prolifically from garden plantings, and today, many wild populations are found in PEI ditches, woodlands, streambanks, and more. Impatiens species are often called “touch-me-nots”. This name derives from its seed dispersal mechanism: seed pods explode on contact, shooting seeds several meters from the parent. It can easily outcompete and exclude native species, and draws pollinator attention away from native plants. Additionally, there has been evidence of Himalayan balsam confusing Monarchs, who lay their eggs on the plant. When caterpillars hatch, they will likely starve, as they need milkweed as a food source.

Spotted Jewelweed, *Impatiens capensis*

Habitat suitability: Wet woodlands, wet meadows, freshwater wetlands, banks, ditches (most areas with constantly moist soils).

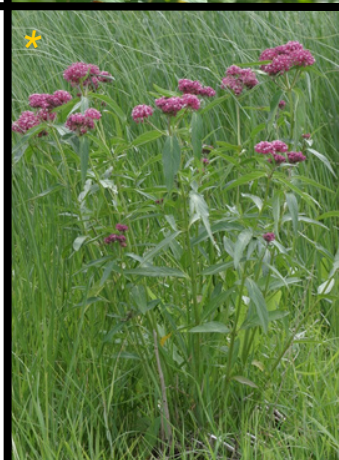
This is PEI’s only native impatiens species. Its size, shape, and structure are very similar to those of Himalayan balsam. Its flowers are orange with red spots on them (sometimes without), blooming from July to September. It is an important food source for pollinators, including hummingbirds. Requires moist to wet soil. Tolerates most light levels, from near-complete shade to full sun. Sap relieves poison ivy, stinging nettle, and bug bites.



Red Swamp Milkweed, *Asclepias incarnata*

Habitat suitability: Wet meadows, fields, freshwater wetlands, banks.

PEI’s only native milkweed species. If you want to attract pollinators, this is an ideal choice. One pollinator in particular, the endangered monarch butterfly, relies on this and other milkweed species to survive. The plant fits the colour profile and size to replace Himalayan balsam, also blooming from July to September. Prefers neutral to acidic and moist to wet soils, tolerates a variety of soil types, and full sun to part shade.



Spotted Joe-pye Weed, *Eutrochium maculatum*

Habitat suitability: Meadows/fields, freshwater wetlands, yards, disturbed sites. This tall (~4-6ft) perennial plant prefers wet conditions and is especially suited to habitats where Himalayan balsam thrives. It is not drought-tolerant and requires full to almost full sun. Its large, plentiful clusters of flowers bloom from July to September and provide ample feeding habitat for pollinators of many kinds. The name Joe-pye weed likely refers to an 18th-century Mohican Sachem and herbalist named Joseph Shauquethqueat, who was also known as Joe Pye.





Scotch Broom

Cytisus scoparius

Favoured for its explosive blooms of early-summer colour, this plant's explosive seed pods have helped it spread outside of cultivation. Brooms are so called because when upturned, they look like a broom! It can effectively exclude native plants where it grows, outcompeting them for space, light, and nutrients. As a legume, it is more easily able to find a suitable habitat than most other plants. It is also a significant fire risk as it contains high levels of volatile oils. In the winter, the plant loses its leaves but retains its green stems.

Shrubby Cinquefoil, *Dasiphora fruticosa*

Habitat suitability: Wet meadows, freshwater wetlands, fens, swamps, shorelines/banks

This is the most similar native species to Scotch broom in size, structure, shape, and appearance. It is extremely rare on PEI, with a rank of S1 (critically imperilled) from the Atlantic Canada Conservation Data Centre. Its numerous flowers, blooming from July to September, provide a vibrant display of colour and attract a bounty of pollinators. It prefers full sun and moist, well-drained, alkaline soil. Notably drought-tolerant.



Witch Hazel, *Hamamelis virginiana*

Habitat suitability: Woodlands, forest edges, shade gardens, streambanks

While this plant has a different size, shape, and form than Scotch broom, it is one of the only PEI native shrubs that produces yellow flowers (blooming from September to November). It is extremely rare on PEI, with a rank of S1 (critically imperilled) from the Atlantic Canada Conservation Data Centre. The plant is long-lived and grows from 6 to 20ft tall. Prefers moist, acidic, rich soils and part or full shade.



Eastern White Cedar, *Thuja occidentalis*

Habitat suitability: Woodlands, swamps, bogs, fields, streambanks.

While this plant can become a large tree, with proper pruning or the selection of a dwarf cultivar, it can remain a shrub, earning it the alternative common name "American arborvitae." While it differs in appearance, if you are looking for a native evergreen shrub to maintain greenery throughout the year, this is an excellent choice. It prefers moist soils, but is also noted to be tolerant of drought. It can grow in full sun or partial shade. Aside from its preference for moisture, it tolerates a wide range of soil types and conditions.





Creeping Bellflower

Campanula rapunculoides

For those in the invasive species field, hearing the word “creeping” in a plant name always causes wariness. Creeping plants are often quite difficult to control once established, and this bellflower is no exception. When attempts to dig it out are made, it often regrows from tiny root fragments that are left behind. Creeping bellflower expands rapidly from initial plantings and can crowd out native species when it escapes cultivation into a natural area. To remove, cut down, and cover with an opaque covering.

Mad-dog Skullcap, *Scutellaria lateriflora*

Habitat suitability: Freshwater wetlands, wet meadows, marshes, swamps, wet garden beds, floodplains, freshwater shores, ditches.

This plant’s beautiful, dainty, purple flowers are similar in shape and arrangement to creeping bellflower, and bloom for the latter half of the summer (from July to September). As with most members of the mint family, once established in a suitable habitat, it can spread vigorously. This perennial prefers moist or wet soils, tolerates both part shade and full sun, and neutral pH.



Herb Robert, *Geranium robertianum*

Habitat suitability: Woodlands, disturbed sites, coastal, rocky sites

This is one of the simplest native ground covers to get established on your property. Once it has set down its roots, it can readily self-sow around your property, adding a pop of colour by producing lovely pink or purple flowers throughout the summertime. Herb Robert is thought to get its name from Robert Goodfellow, AKA Robin Hood. Prefers moist, well-drained soil, but it is tolerant of a variety of conditions and drought.



Native Blue & Purple Violets, *Viola cucullata**, *V. labradorica*, *V. nephrophylla*, *V. sagittata*

Habitat suitability: Varies by species

Violets are a common sight in many PEI gardens, but these are most often non-native violets, including the invasive johnny-jump-up. The species listed above are great native violet species to choose from. Species can be planted in a mixed group to offer a wider variety of colours and blooming times. These groundcovers are perfectly suited to PEI ecosystems of varying character.





Common and Japanese Barberry

Berberis vulgaris, Berberis thunbergii

This pair of commonly planted ornamental shrubs has proven problematic to both natural and agricultural landscapes on PEI. Common barberry is a host of the stem rust of wheat fungus, and for this reason, its sale and propagation are banned in Canada. To replace it, the industry introduced Japanese barberry. Unfortunately, despite not carrying the fungus, Japanese barberry presents a threat to natural areas, where it outcompetes many native species for resources. Its sharp thorns are dangerous for unwary passersby, and it has also been shown to provide an ideal habitat for ticks to live in.

Black Chokeberry*, *Aronia melanocarpa*, Purple Chokeberry, *A. prunifolia*

Habitat suitability: Bogs, dunes, swamps, shores/banks, woodlands, fens

These highly versatile shrubs are resistant to drought, flooding, insects, pollution, and disease. They can also be used as a soil stabilization plant to prevent erosion. They provide ornamental beauty year-round, with clusters of beautiful white flowers that bloom in late spring and early summer, and lovely crimson foliage in the fall. Additionally, these shrubs produce berries that attract birds and other wildlife, improving your property's habitat value. Prefers moist, acidic to neutral soils and full sun or part shade.



Lowbush Blueberry, *Vaccinium angustifolium*

Habitat suitability: Grasslands, meadows, fields, woodlands, shorelines

A common sight across PEI, this species is great for a mid-hike snack in late summer/early fall. On top of its obvious nutritional value, it provides year-round beauty. In May and June, clusters of small white flowers bloom, and in the fall, its foliage turns striking colours from bronze to crimson. Along with feeding you, it is a great food source for wildlife. It grows best in normal or dry soils and prefers well-drained, acidic, and sandy soils.



Canada Yew, *Taxus canadensis*

Habitat suitability: Woodlands, shores, marshes, swamps, riparian areas

This low-growing shrub was at one time threatened on PEI by overharvesting due to its medicinal value, which was at the time used in the production of a cancer treatment drug. Today, its numbers have rebounded. With lovely evergreen foliage, dainty white flowers, and pinkish-red fleshy cones (berry-like but not berries!), this shrub will offer a feast for the eyes all year round. While its cones are poisonous to people, they are a valuable food source for wildlife. Prefers full to part sun, acidic to normal pH, as well as moist and rich soils.





Burning Bush

Euonymus alatus

This is one of the most commonly planted and sold invasive ornamental shrubs in North America. Favoured for its vibrant displays of fall colour, this shrub can become highly invasive when it escapes from ornamental plantings into natural areas. In a woodland setting, this plant is particularly invasive and can completely dominate the shrub layer of a forest understory. While it may look pretty, it is damaging to the local ecosystem, displacing native plants and the wildlife that depend on them.

Staghorn Sumac, *Rhus typhina*

Habitat suitability: Meadows, fields, forest edges, disturbed sites

Considered weedy by some, this plant is, in fact, ranked as S3 (vulnerable) by the Atlantic Canada Conservation Data Centre. Once it has become established, it can spread quite vigorously and may need to be contained. Its striking foliage is reminiscent of exotic lands, and in the fall, it can compete with the most vibrant exotic plants with its beautiful crimson colours. Additionally, the berries are great for winter birds, and can be processed to make a refreshing sumac lemonade.



Northern Wild Raisin, *Viburnum cassinoides*

Habitat suitability: Woodland, wet fields/meadows, swamps, bogs, shores

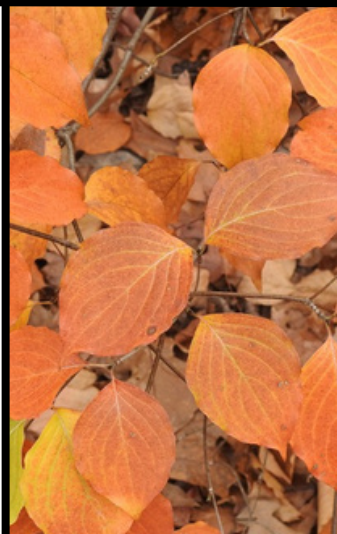
One of PEI's gorgeous viburnum species, this shrub can outshine the fall vibrancy of burning bush with a brilliant display of colour. In addition to its foliage, the plant produces clusters of lovely white flowers in June. These turn to berries in late summer, which are not only edible to people and wildlife (although not very tasty), but also offer a gorgeous array of colour from pink to blue to deep purple. Prefers poorly drained, loamy, and normal-moist soils, full or partial sun, and can tolerate flooding.



Roundleaf Dogwood, *Cornus rugosa*

Habitat suitability: Woodlands, floodplains, freshwater wetlands

While this plant is more abundant elsewhere, on PEI it is very rare, ranked S2 (imperilled) by the Atlantic Canada Conservation Data Centre. On top of bringing a burst of fall colour to your property, you will be expanding the distribution of a rare species by planting it. In June and July, clusters of white flowers provide ample nectaring habitat for pollinators. Roundleaf dogwood prefers full sun but tolerates part shade. It tolerates a variety of soil conditions and types, but does best in alkaline soils.





(1)

Invasive Honeysuckles

Morrow's Honeysuckle, *Lonicera morrowii* (1); Tartarian Honeysuckle, *Lonicera tartarica*, Amur Honeysuckle, *Lonicera maackii*; Bells Honeysuckle, *Lonicera x bella*

Honeysuckles may sound sweet, but they can become ecological bullies when they escape from ornamental plantings into natural areas. Despite this, they continue to be one of PEI's most widely sold and planted ornamental shrubs. Did you know? PEI is home to several native honeysuckles, which offer comparable beauty at no ecological cost. Check them out below!

Northern Bush Honeysuckle, *Diervilla lonicera*

Habitat suitability: Woodlands, fields, freshwater wetlands, forest edges

This versatile shrub is a fairly common sight in PEI natural areas and is equally at home in a garden setting. Beautiful bell-shaped flowers bloom in June and July, and change from yellow to orange-red with age. These attract a variety of pollinators, from butterflies to hummingbirds. The plant has a strong fibrous root system that provides a high level of soil stability. It prefers moist soils, but is drought-tolerant. It thrives in a variety of soil types and can grow in acidic conditions and wind.



Canada Fly Honeysuckle, *Lonicera canadensis*

Habitat suitability: Woods, upland areas, swamps, marshes, bogs, fens

This thin-branched woody shrub is an excellent choice for shady areas. It blooms in late spring, providing an excellent source of food to early-season pollinators. Additionally, its uniquely shaped berries are a suitable nutrient source for birds. It has white or yellow bell-shaped flowers, blooming in the spring. Tolerates a wide variety of soil types and conditions, but has a preference for full or part shade. Drought-tolerant.



Winterberry Holly, *Ilex verticillata*

Habitat suitability: Wet fields/meadows, forest edges, swamps, marshes

If attracting birds and small mammals to your yard through the winter is your goal, this is the plant for you! The plant gets its name from the bright red berries that persist into winter, which provide both a food source for wildlife and a splash of colour. In addition to wildlife benefits, this densely growing shrub spreads well. It can provide excellent soil stability and act as a living fence. Winterberry holly prefers full sun or part sun, wet-normal moisture levels, and a variety of soil pHs and types.





Invasive Vines

Asiatic bittersweet, *Celastrus orbiculatus* (1); Wild Cucumber, *Echinocystis lobata*; Virginia Creeper, *Parthenocissus quinifolia*; English Ivy, *Hedera helix*; Bindweeds, *Convolvulaceae*

PEI has very few native vine species, so it may be tempting to introduce new species to cover trellises. Introduced vines, by their nature, rely on impacting the plants they are climbing on. Plants being climbed are weighed down and are more prone to breakage, and vines leech nutrients and light away from the climbed plants. Here are a few native vines that are both beautiful and beneficial to our Island's ecosystems.

Devil's Darning Needle, *Clematis virginiana*

Habitat suitability: Hedgerows, open woods/edges, shores, swamps

Unfortunately overlooked by the horticulture industry, this is perhaps PEI's most ornamentally beautiful native vine and is the PEIISC's most highly recommended native climbing plant. It is ideal for trellises and fences, growing up to 20ft long. In July and August, mature plants produce a large number of dainty, sweet-smelling, white flowers. The show is far from over, as its fluffy fruits persist through the fall and into winter. Prefers moist sites with full or partial sun, tolerates acidic soils.



Climbing False Buckwheat, *Fallopia scandens*

Habitat suitability: Woods/edges, floodplains, hedgerows, banks, ditches

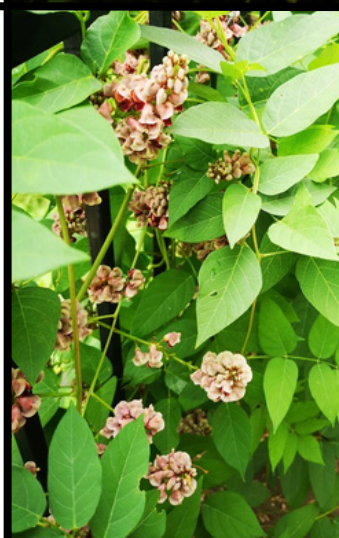
This white-flowered vine is well-suited to PEI's climate. An uncommon plant locally, ranked S3 (vulnerable) by the Atlantic Canada Conservation Data Centre. The plant produces clusters of variably coloured (but usually white) flowers from July to September. In late summer and early fall, it produces white, fringed, hanging fruits. Prefers moist, fertile, loamy soils, but can also tolerate drier conditions and other soil types.



American Groundnut, *Apios americana*

Habitat suitability: Woodlands, marshes, wet meadows, banks, thickets

An important food plant in Mi'kmaq culture, this vine grows up to 20ft long and produces large edible tubers underground. Principally due to habitat loss, this plant is extremely rare on PEI, with a ranking of S1 (critically imperilled) from the Atlantic Canada Conservation Data Centre. On top of its use as a food plant, it has beautiful white & purple flowers (blooming July to September) and foliage. A legume, it replenishes soil nitrogen, and tolerates a variety of soil conditions and light levels.





Invasive Asian Knotweeds

Japanese Knotweed, *Reynoutria japonica* (1); Giant Knotweed, *R. sachalinensis*; Bohemian knotweed, *R. x bohemica*

Japanese knotweed and its relatives have become the most well-known invasive plant species on PEI. These species have wide-ranging impacts, from damaging infrastructure with their hardy root system, to blocking sightlines in roadways, to impacting property values, to displacing native plant species. Initially introduced for use as an ornamental plant and as a privacy screen, this plant is as destructive as it is pretty, and should never be intentionally spread.

Chokecherry, *Prunus virginiana*; Pin Cherry, *Prunus pensylvanica*

Habitat suitability: Woodlands, banks, hedgerows, disturbed sites

Looking for a plant to create a hedge or privacy screen? Look no further. Cherries are some of PEI's most widespread and versatile shrubs, and will most likely find your property much to its liking. With hanging clusters of white flowers blooming throughout the summer, the plants have a very similar ornamental appearance to knotweed. They're a valuable food source for wildlife, and their berries can make a good jelly after processing. Their versatility makes them suitable to grow almost anywhere on PEI. They aren't picky about light, moisture, pH, or soil type.

Affected by Black Knot, a fungal disease



Common Elder, *Sambucus canadensis*

Habitat suitability: Freshwater wetlands, woodlands, banks, forest edges

Similar to knotweed in size, ornamental value, and vigorous growth. In the spring and early summer, large clusters of white flowers offer a feast for the eyes and pollinators alike. In late summer, elderberries develop, providing food to wildlife. Fruits are often used in wine, jams, and jellies after processing. This species often pops up after a blowdown. Prefers full sun, tolerates part shade. Prefers moist soils but tolerates dry soil as well. Prefers clay soils but will tolerate other types. Forms a nice hedge.



Red Osier Dogwood, *Cornus sericea*

Habitat suitability: Wet meadows/fields, dunes, woodland, disturbed sites

Many consider this plant to be weedy, but its beauty can brighten up a property year-round. Beautiful foliage in spring and summer turns to brilliant colours in the fall. In May and June, clusters of white flowers attract pollinators and catch the eye. Its suckering growth allows it to form a thick hedge. In winter, the show is far from over! Bright red bark shines out against the snow, and twigs can be collected for Christmas decor. The shrub is also highly versatile and suited to most sunny areas on PEI.





Invasive Grasses

Invasive Phragmites, *Phragmites australis* ssp. *australis* (1); Non-sterile Miscanthus, *Miscanthus* spp.; Reed Canary Grass, *Phalaris arundinacea*; Japanese Stiltgrass, *Microstegium vimineum*; etc.

Grasses often blend into the environment, but are one of the most invasive plant groups. This tendency makes selecting the right grass for your property an important decision. PEI native grasses are ideally suited to our Island's climate, fit well into the landscape, and offer significant wildlife benefits. Native grasses can also make excellent choices for use as erosion control plants. Check out our recommendations below, or ask your local garden centre about native grass stock.

Prairie/Tall Cordgrass, *Sporobolus michauxianus*

Habitat suitability: Meadows, fields, marsh, coastal, freshwater wetlands

PEI's native grasses have deep roots and are an ideal choice for soil stability and erosion prevention. This grass is no exception. Growing from 5-8ft tall, it is one of PEI's tallest grass species. This colony-forming species is hardy, salt-tolerant, and although it prefers moist soils, it is notably drought-tolerant. It has showy flowers that form in July and August, and leaves that turn a lovely yellow colour in the fall. This grass needs full sun, but tolerates a variety of soil conditions.



Vanilla Sweetgrass, *Anthoxanthum nitens*

Habitat suitability: Meadows, fields, marshes, fens, freshwater wetlands

This grass species is culturally significant for the Mi'kmaq people, who use the plant for ceremonial and basketweaving purposes. It gets its name from its sweet scent. It is extremely cold-hardy and can weather even our toughest winters. It is also known to produce mosquito-repelling compounds. The plant will thrive in a variety of soil types and moisture levels, but prefers moist-wet soil. It is somewhat salt-tolerant and can find a home in brackish or salt marshes and dunes.



Virginia Wild Rye, *Elymus virginicus*

Habitat suitability: Meadows, fields, banks, marshes, coastal, woodlands

If you are looking for a grass that provides habitat to insects and attracts pollinators like butterflies, look no further! This grass has large, showy flower/seed heads that support insects and birds alike. While common elsewhere, this grass is fairly rare on PEI, ranked S2S3 (vulnerable - imperiled) by the Atlantic Canada Conservation Data Centre. Superbly suited to control erosion, this plant has a preference for moist, well-drained soils and grows best in full sun or part shade. Spreads readily in suitable growing conditions.





Yellow Flag Iris

Iris pseudacorus

Have you ever noticed a patch of brilliant yellow irises in a PEI wetland in late spring to early summer? Chances are, it was this invasive species. Initially introduced as a showy, easy-to-grow iris for gardeners, it has escaped cultivation and is now affecting wetlands in all three counties. In 2022, the PEIISC ran a successful project to control the plant using benthic barriers. The plant spreads by root fragments and seeds. It can outcompete and displace native plants and adversely impact wildlife that depend on them.

Northern/Harlequin Blue Flag Iris, *Iris versicolor*

Habitat suitability: Meadows, fields, freshwater wetlands, disturbed sites

This is the more common and versatile of PEI's two native iris species. It is also one of the most beautiful flowers to be found on the Island. The plant blooms throughout the summer, producing large, three-part purplish-blue flowers. Its dense, blade-like foliage will please the eye. It provides habitat for pollinators, including hummingbirds. While this plant is found predominantly in coastal areas and other wetlands, it is versatile and simple to grow. Prefers full sun and acidic soils. Spreads readily.



Hooker's Iris, *Iris hookeri*

Habitat suitability: Coastal, bogs, marshes, clearings, roadsides, ditches

Endemic to the North Atlantic Coast of North America, this iris tolerates our cold winters and loves a bit of salt spray. Its salt tolerance makes it a great choice for planting in areas with heavy road salt use. In the summertime, when healthy, it produces a copious amount of beautiful blue flowers. While it prefers moist, well-drained soils, it can tolerate dry spells. It prefers full sun, soaking it up with large, blade-like leaves.



Marsh Marigold, *Caltha palustris*

Habitat suitability: Woodlands, banks, ditches, swamps, wetland margins

A common sight along banks, this brilliant yellow-flowering plant is ideally suited to grow near freshwater wetlands and watercourses across PEI. It is not actually a marigold, but is rather a member of the buttercup family. In spring, it is often found lining Island streams and rivers with large numbers of beautiful yellow flowers. This plant requires constant moisture to survive, and does best in wet or moist, poorly-drained soils. It prefers to grow in full to part sun. If replacing yellow flag iris growing in a wet area, this is an excellent choice!





False Spiraea

Sorbaria sorbifolia

With showy white flowers that attract pollinators, it's not hard to tell why this plant is so widely featured in PEI gardens. Looks can be deceiving, though! When this plant escapes gardens, it can easily become established in a nearby natural area, displacing native species and disrupting ecosystem integrity. False spiraea is clump-forming and often completely excludes other plant growth. The lack of shelter and food provided by native plants can, in turn, drive out wildlife that live in these areas.

White Meadowsweet, *Spiraea alba*

Habitat suitability: Woodlands, freshwater wetlands, disturbed sites

Why plant false spiraea when you can have the real thing? Sweeten up your property with this beautiful, easy-to-grow species. In the summertime, large clusters of white flowers look almost identical to its invasive look-alike and support many species of pollinators. This plant spreads readily and tends to form colonies. If you are looking for a living fence, large stands can provide a unique hedge. Suitable for full sun or shade, this plant prefers moist or wet soils with near-neutral pH.



Large False Solomon's Seal, *Maianthemum racemosum*

Habitat suitability: Woodlands, banks, freshwater wetland margins

If you are looking for an attractive groundcover for a woodland or shade garden, look no further. This shade-loving plant has a very similar flower arrangement to its invasive look-alike. In summer and fall, it produces large clusters of berries that turn from goldish-brown to bright red as they ripen. It is commonly found in Island woodlands, particularly in rich, deciduous forests. Can tolerate a variety of soil moisture levels.



Common Boneset, *Eupatorium perfoliatum*

Habitat suitability: Freshwater wetlands, disturbed sites, wet meadows

While not medicinal use is recommended, this plant earns its common name from its past medicinal use in bone-setting. While no longer widely used medicinally, it can still be used ornamentally. It has large, showy clusters of white flowers that bloom throughout the summer, supporting a wide variety of pollinators. Its foliage is quite interesting, as opposing leaves wrap fully around the stem, giving the appearance that the stem is growing right through the leaf. Prefers full sun but will tolerate some shade. Requires moist or wet soils and is flood-tolerant. It is not picky about soil type or pH.





Autumn Olive and Russian Olive

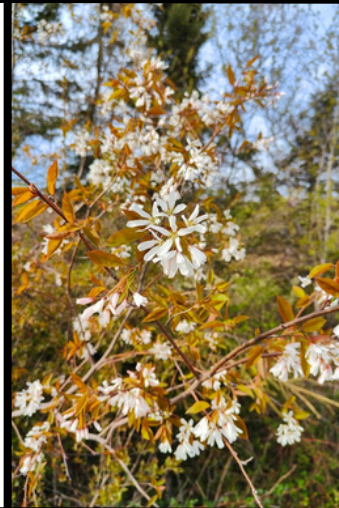
Elaeangus angustifolia (1); *Elaeangus umbellata* (2)

These plants, valued for their fruits and ornamental beauty, readily escape cultivation and move into natural areas. Despite their copious fruit production, when they escape into a natural area, these fruits often do not provide adequate nutrients to wildlife when compared to the native plants they displace. We understand these invasive olive trees bring a lot to the kitchen, but we encourage you to get creative and consider some of the native plants with edible fruit listed below. You might find your new favorite flavour!

Serviceberry, *Amelanchier* spp.

Habitat suitability: Roadside, woodlands, freshwater wetlands, meadows

Looking for a shrub with ornamental beauty, wildlife value, versatile growing conditions, and edible fruit? Look no further than one of PEI's several native species of serviceberry. In spring and early summer, they provide a lovely display of numerous white flowers, attracting pollinators to your property. In midsummer, tasty berries are produced, which can offer a great snack if you can beat the birds to them! Prefers moist, well-drained soils but is generally not picky about growing conditions.



Beaked Hazelnut, *Corylus cornuta*

Habitat suitability: Woodlands, hedgerows, banks, wetland margins

If a shade-loving shrub with wildlife benefits is your desire, beaked hazelnut is an excellent choice. This medium-sized shrub has large leaves, and female plants produce dainty red flowers in the spring. In the fall, the shrub produces the fruits that give it its name. They have a long "beaked" husk and offer a great snack for people and wildlife. The plant is best grown in full sun, but can tolerate shade well. Prefers moist, well-drained soils with neutral pH.



American Cranberry, *Viburnum opulus* var. *americanum*

Habitat suitability: Woodlands, hedgerows, meadows, wetland margins

Don't mistake this shrub for its invasive cousin, which is a separate subspecies with a tendency to escape gardens and displace native species. It is ranked as S3 (vulnerable) by the Atlantic Canada Conservation Data Centre, so planting will support a struggling native plant. The North American variety is highly beneficial to wildlife that depend on it for shelter and nutrition. Berries can also be processed for human consumption, and reportedly make great jams and jellies. Prefers moist, well-drained soils and part shade.



Affected by Viburnum
Leaf Beetle



Privet

European Privet, *Ligustrum vulgare* (1); Chinese Privet, *Ligustrum sinense*; Border Privet, *Ligustrum obtusifolium* (2)

Privets have not become widespread on PEI yet, but are considered to be a “sleepers species”. This means that under future, warmer climate conditions, it is likely to become more invasive locally. In the Northeastern USA, privet is already a serious ecological issue. Their dense foliage, favoured for hedges, shades out and excludes native species when they escape into a natural area. In particular, they can reduce regeneration in a forest when they invade the understory. Thankfully, there are many native alternatives to choose from!

Northern Bayberry, *Morella pensylvanica*

Habitat suitability: Coastal, fields/meadows, wetlands, forest edges

If you are seeking the heavy berry production of privet, this may be the plant for you! This highly versatile shrub can tolerate salt spray, bitter cold, and sweltering heat. It can tolerate full sun or part shade, and dry or moist soils. Catkins appear in the early spring and lead to waxy, blue-white berries later on. The plant’s alternative name, candleberry, comes from the high wax content in the berries, which can be used in candlemaking. Its foliage is very fragrant, and can add some perfume to the breeze.



Hobblebush, *Viburnum lantanoides*

Habitat suitability: Woodland, forest edge, swamps, banks, shade garden

Although more common on the mainland, this plant is very rare on PEI, ranked as S1/S2 (imperilled to critically imperilled) by the Atlantic Canada Conservation Data Centre. This plant demonstrates a layered canopy with large leaves to absorb the limited sun available in the forest understory. Beautiful clusters of white or pink flowers bloom in spring and early summer, followed by colourful clusters of berries. Even new leaves are beautiful, and are often a bright orange colour.



Affected by *Viburnum*
Leaf Beetle

Alternate Leafed Dogwood, *Cornus alternifolia*

Habitat suitability: Woodland, fields, meadows, shrublands

This shrub is highly versatile in its growing conditions and can be propagated easily from cuttings. In the spring and early summer, it produces a large number of clusters of white flowers. This provides ample habitat for early-season pollinators. In midsummer, it will begin to produce white to blue-black berries that are an excellent source of food for birds and mammals. While it is not picky about its growing conditions, it prefers moist, acidic, well-drained soils and part shade.



ADDITIONAL HORTICULTURAL INVASIVES



Left: Butterfly Bush,
Buddleja davidii

Right: Callery Pear,
Pyrus calleryana



Left: Drooping Star of
Bethlehem, *Ornithogalum
nutans*

Right: European Waterlily,
Nymphaea odorata



Left: Yellow Archangel,
Lamium galeobdolon

Right: Lesser Celandine,
Ficaria verna



Left: Cypress Spurge,
Euphorbia cyparissias

Right: Scotch Pine,
Pinus sylvestris



INVASIVE MEDICINAL PLANTS



Left: Knapweed species,
Centaurea spp.

Right: Tamarisk species,
Tamarix spp.



Left: Creeping Charlie,
Glechoma hederacea

Right: False Cleaver's
Bedstraw, *Galium spurium*



Left: Common St. John's
Wort, *Hypericum*
perforatum

Right: Common Mugwort,
Artemisia vulgaris



Left: Common Valerian,
Valeriana officinalis

Right: White Mulberry,
Morus alba



Note: Medicinal use of these plants is not encouraged by the PEIISC, and is undertaken at your own risk.

ADDITIONAL NATIVE PLANT SUGGESTIONS



Left: Dutchman's Breeches,
Dicentra cucullaria

Right: Rhodora,
Rhododendron canadense



Left: Jack-in-the-pulpit,
Arisaema triphyllum

Right: Sweet Gale,
Myrica gale



Left: Rock Harlequin,
Corydalis sempervirens

Right: Enchanter's
Nightshade, *Circaea* spp.



Left: Native willows,
Salix spp.

Right: Fireberry Hawthorn,
Crataegus chrysocarpa



ADDITIONAL NATIVE PLANT SUGGESTIONS



Left: Sweet Fern,
Comptonia peregrina

Right: Bog Birch,
Betula pumila



Left: Mountain Blue-eyed
Grass, *Sisyrinchium*
montanum

Right: Cutleaf Coneflower,
Rudbeckia laciniata



Left: Seaside Goldenrod,
Solidago sempervirens

Right: Pearly Everlasting,
Anaphalis margaritacea



Left: Ironwood, *Ostrya*
virginiana

Right: Tall Hairy Flat-top
White Aster, *Doellingeria*
umbellata



NATIVE FERNS FOR YOUR PROPERTY



Left: Interrupted Fern,
Osmunda claytonia



Right: Long Beech Fern,
Phegopteris connectilis



Left: Common Lady-fern,
Athyrium filix-femina



Right: Royal Fern,
Osmunda regalis



Left: Sensitive Fern,
Onoclea sensibilis



Right: Ostrich Fern,
Matteuccia struthiopteris



Left: Christmas Fern,
*Polystichum
acrostichoides*



Right: Northern Oak Fern,
Gymnocarpium dryopteris

DISPOSAL OF INVASIVE PLANTS

No invasive species management effort is complete without properly completing disposal. Every invasive species has a recommended disposal procedure, which may vary based on site conditions, time of year, and life stage. For more information on species-specific disposal, visit our invasive species profiles or reach out to the Prince Edward Island Invasive Species Council (PEIISC) directly.

Formal disposal, applicable for any invasive species material:

- After removing invasive plants, collect the material in an accessible location.
 - If possible without promoting spread, the material can be dried. This will reduce weight, and thus reduce disposal cost and reduce the intensity of labour involved. If the species can reroot, materials set to dry **MUST** be placed on an impervious surface, or the pile must be turned regularly to ensure complete drying.
- Bag invasive plant material in clear plastic bags. Seal the bags. Mark the bags with “INVASIVE SPECIES” in dark permanent marker.
- To get the material to the Island Waste Management Company (IWMC), you have a few options.
 - 1. Residential waste collection
 - Place the labelled bags in your black waste cart (NEVER in the green compost bin, as this can promote the spread of the invasive species later on).
 - You can place up to two additional bags beside the cart for collection if your cart is full.
 - If waste handlers do not pick up the material, call IWMC to let them know. They will send someone out to correct the mistake. Not all waste collectors are familiar with these regulations.
 - 2. Direct drop off to IWMC disposal depot
 - Head to any waste watch disposal site.
 - Inform the scale attendant that you have invasive species when you arrive.
 - Employees will direct you to the proper area or come collect the material from you directly.
 - When leaving, speak to the scale attendant and pay the associated disposal fee, usually around 5-15\$ per truckload based on weight.
 - 3. Large loads direct to the PEI Energy Systems incinerator on Riverside Dr. in Charlottetown.
 - Businesses and residents disposing of loads greater than what would fit in a half-tonne truck require a permit (Special Waste Permit) from the Department of Environment ([1-866-368-5044](tel:1-866-368-5044)). After receiving the permit, businesses and residents will be directed to an appropriate final disposal facility. Please note that only the loads for which permits have been issued will be accepted at those facilities.
 - Alternatively, split the load into smaller loads to avoid the need for permitting.
 - The need for a permit comes from the large potential environmental impact a release of such a large amount of invasive species material could cause to ensure safe disposal and operator awareness.
 - When you arrive at the incinerator, show the scale attendant your permit. They will want the permit number, which they will reference in their system.
 - Drop off the material as directed, and pay the associated fee based on weight at the scales when leaving.
- Formal disposal is required when: 1) Plants have seeds/fruits attached. 2) Plants can reroot when in contact with soil and/or water. 3) Material may be disturbed and distributed by wind, water, animals, or people. 4) Material causes a hazard. 5) You are unsure whether formal disposal is required.

DISPOSAL OF INVASIVE PLANTS, FAQ

Can I burn invasive plant material to dispose of it?

If conditions and local legislation allow for the safe burning of invasive plant material, this can be undertaken at your own risk. Ensure that you check with provincial and municipal authorities by either reaching out directly or by checking the burning restrictions here:

<https://www.princeedwardisland.ca/en/feature/burning-restrictions>. Depending on the nature of the burn, you may also require a burn permit from the PEI Department of Land and Environment (Forests, Fish and Wildlife Division) before proceeding. Check regulations before burning and seek a permit if necessary.

You can burn if: 1) It is safe to do so. 2) All necessary precautions have been taken to ensure a controlled burn. 3) You have all necessary permissions and permits, and the burn is conducted in accordance with the law. 4) Material is free from seeds. Seeds can be removed, and the remainder of the material burned while formally disposing of seeds.

When you should not burn: 1) When plants have seed attached, as burn temperatures may not kill off seeds. Seeds can be removed, and the remainder of the material can be burned while formally disposing of the seeds. 2) When dry conditions make it unsafe to do so. 3) When the material is too wet to be burnt. 4) When provincial fire bans are in place. 5) When any other conditions exist that would otherwise make the burn unsafe.

Why shouldn't I dump invasive plant material into a natural area?

When invasive plant material is dumped into a natural area, it may have the opportunity to re-establish and spread. Many plants can re-root after being dug up or can regenerate from fragments, and introducing these can increase competition for native species, disrupt ecosystem integrity, or spread pests/diseases that may be found on your property but not in the environment around a garden dump site. Many plants will produce seed as a stress response after being dug up, which can also facilitate spread. Don't make your invasive species someone else's issue! This is one of the primary ways invasive species are introduced to new areas on PEI.

Why shouldn't I put invasive plants in the green compost bin?

When invasive species are disposed of in the compost bin, the material can spread during compost processing, as the composting process is not guaranteed to kill all seeds and plant parts. If the material remains viable after distribution, the invasive plants may spread wherever the compost is used. Invasive plant material that is not reproductively capable (cannot resprout, has no seeds) can be safely composted by individuals using do-it-yourself processes at home, but should still not be disposed of in IWMC compost bins.

Can I leave non-viable invasive plant material to decompose on site?

If you are sure it is non-viable (cannot reproduce), then yes! If you are unsure of the plant material's viability, reach out to the PEIISC to confirm. While awaiting direction, leave the materials on an impervious surface (tarp, concrete pad) in a safe place where the material will not be disturbed. This will prevent the material from coming in contact with soil, where it could potentially re-root (depending on the species and conditions). If the material has seeds or can re-root, formal disposal is required. Thus, management before seed production is recommended for most invasive plant species.

RECOMMENDED NATIVE PLANTINGS BY HABITAT

Freshwater Wetlands

- Steeplebush, *Spiraea tomentosa*
- Fireweed, *Chamaenerion angustifolium*
- Blue Vervain, *Verbena hastata*
- Shining Rose, *Rosa nitida*
- Yellow Trout Lily, *Erythronium americanum*
- Wild Lily-of-the-valley (Canada Mayflower), *Maianthemum canadense*
- Blue Bead Lily, *Clintonia borealis*
- Red Maple, *Acer rubrum*
- Striped Maple (Moose Maple), *Acer pensylvanicum*
- Eastern Teaberry, *Gaultheria procumbens*
- Common Silverweed, *Potentilla anserina*
- Spotted Jewelweed, *Impatiens capensis*
- Red Swamp Milkweed, *Asclepias incarnata*
- Spotted Joe-pye Weed, *Eutrochium maculatum*
- Eastern White Cedar, *Thuja occidentalis*
- Shrubby Cinquefoil, *Dasiphora fruticosa*
- Mad-dog Skullcap, *Scutellaria lateriflora*
- Black Chokeberry, *Aronia melanocarpa*
- Purple Chokeberry, *Aronia prunifolia*
- Roundleaf Dogwood, *Cornus rugosa*
- Northern Bush Honeysuckle, *Diervilla lonicera*
- Canada Fly Honeysuckle, *Lonicera canadensis*
- Winterberry Holly, *Ilex verticillata*
- Common Elder, *Sambucus canadensis*
- Common Boneset, *Eupatorium perfoliatum*
- Large False Solomon's Seal, *Maianthemum racemosum*
- White Meadowsweet, *Spiraea alba*
- Marsh Marigold, *Caltha palustris*
- Hooker's Iris, *Iris hookeri*
- Northern/Harlequin Blue Flag Iris, *Iris versicolor*
- Virginia Wild Rye, *Elymus virginicus*
- Prairie/Tall Cordgrass, *Sporobolus michauxianus*
- Vanilla Sweetgrass, *Anthoxanthum nitens*
- Serviceberry, *Amelanchier* spp.
- Northern Bayberry, *Morella pensylvanica*
- Rhodora, *Rhododendron canadense*
- Native willows, *Salix* spp.
- Sweet Gale, *Myrica gale*

Woodland

- Fireweed, *Chamaenerion angustifolium*
- Carolina Rose, *Rosa carolina*
- Virginia Rose, *Rosa virginiana*
- Canada Anemone, *Anemone canadensis*
- Bunchberry, *Cornus canadensis*
- Yellow Trout Lily, *Erythronium americanum*
- Wild Lily-of-the-valley (Canada Mayflower), *Maianthemum canadense*
- Blue Bead Lily, *Clintonia borealis*
- Eastern Teaberry, *Gaultheria procumbens*
- Golden Alexanders, *Zizia aurea*
- Partridgeberry, *Mitchella repens*
- Spotted Jewelweed, *Impatiens capensis*
- Common Silverweed, *Potentilla anserina*
- Downy Yellow Violet, *Viola pubescens*
- Witch Hazel, *Hamamelis virginiana*
- Canada Yew, *Taxus canadensis*
- Lowbush Blueberry, *Vaccinium angustifolium*
- Inflated Lobelia, *Lobelia inflata*
- Black Chokeberry, *Aronia melanocarpa*
- Purple Chokeberry, *Aronia prunifolia*
- Roundleaf Dogwood, *Cornus rugosa*
- Northern Wild Raisin, *Viburnum cassinoides*
- Canada Fly Honeysuckle, *Lonicera canadensis*
- Northern Bush Honeysuckle, *Diervilla lonicera*
- Devil's Darning Needles, *Clematis virginiana*
- American Groundnut, *Apios americana*
- Climbing False Buckwheat, *Fallopia scandens*
- Red Osier Dogwood, *Cornus sericea*
- Common Elder, *Sambucus canadensis*
- Chokecherry, *Prunus virginiana*
- Virginia Wild Rye, *Elymus virginicus*
- Marsh Marigold, *Caltha palustris*
- Large False Solomon's Seal, *Maianthemum racemosum*
- White Meadowsweet, *Spiraea alba*
- American High-Bush Cranberry, *Viburnum opulus* var. *americanum*
- Beaked Hazelnut, *Corylus cornuta*
- Serviceberry, *Amelanchier* spp.
- Alternate Leafed Dogwood, *Cornus alternifolia*
- Hobblebush, *Viburnum lantanoides*
- Ironwood, *Ostrya virginiana*

RECOMMENDED NATIVE PLANTINGS BY HABITAT

Coastal

- Carolina Rose, *Rosa carolina*
- Virginia Rose, *Rosa virginiana*
- Creeping Juniper, *Juniperus horizontalis*
- Common Silverweed, *Potentilla anserina*
- Prairie Cordgrass, *Sporobolus michauxianus*
- Virginia Wild Rye, *Elymus virginicus*
- Northern/Harlequin Blue Flag Iris, *Iris versicolor*
- Hooker's Iris, *Iris hookeri*
- Northern Bayberry, *Morella pensylvanica*
- Sweet Gale, *Myrica gale*
- Large Cranberry, *Vaccinium macrocarpon*
- Small Cranberry, *V. oxycoccos*
- Sweet Fern, *Comptonia peregrina*
- Seaside Goldenrod, *Solidago sempervirens*

Disturbed Sites

- Carolina Rose, *Rosa carolina*
- Virginia Rose, *Rosa virginiana*
- Howell's Pussytoes, *Antennaria howellii*
- Common Silverweed, *Potentilla anserina*
- Spotted Joe-pye Weed, *Eutrochium maculatum*
- Herb Robert, *Geranium robertianum*
- Steeplebush, *Spiraea tomentosa*
- Fireweed, *Chamaenerion angustifolium*
- Staghorn Sumac, *Rhus typhina*
- Devil's Darning Needle, *Clematis virginiana*
- Climbing False Buckwheat, *Fallopia scandens*
- Chokecherry, *Prunus virginiana*
- Pin Cherry, *Prunus pensylvanica*
- Common Elder, *Sambucus canadensis*
- Red Osier Dogwood, *Cornus sericea*
- Rock Harlequin, *Corydalis sempervirens*
- Native willows, *Salix spp.*
- Fireberry Hawthorn, *Crataegus chrysocarpa*
- Sweet Fern, *Comptonia peregrina*
- Mountain Blue-eyed Grass, *Sisyrinchium montanum*
- Cutleaf Coneflower, *Rudbeckia laciniata*
- Seaside Goldenrod, *Solidago sempervirens*
- Pearly Everlasting, *Anaphalis margaritacea*
- Tall Hairy Flat-top White Aster, *Doellingeria umbellata*
- Sensitive Fern, *Onoclea sensibilis*

Meadows & Fields

- Steeplebush, *Spiraea tomentosa*
- Fireweed, *Chamaenerion angustifolium*
- Blue Vervain, *Verbena hastata*
- Carolina Rose, *Rosa carolina*
- Virginia Rose, *Rosa virginiana*
- Howell's Pussytoes, *Antennaria howellii*
- Downy Yellow Violet, *Viola pubescens*
- Common Silverweed, *Potentilla anserina*
- Spotted Jewelweed, *Impatiens capensis*
- Red Swamp Milkweed, *Asclepias incarnata*
- Spotted Joe-pye Weed, *Eutrochium maculatum*
- Shrubby Cinquefoil, *Dasiphora fruticosa*
- Mad-dog Skullcap, *Scutellaria lateriflora*
- Black Chokeberry, *Aronia melanocarpa*
- Purple Chokeberry, *Aronia prunifolia*
- Lowbush Blueberry, *Vaccinium angustifolium*
- Staghorn Sumac, *Rhus typhina*
- Northern Wild Raisin, *Viburnum cassinoides*
- Northern Bush Honeysuckle, *Diervilla lonicera*
- Winterberry Holly, *Ilex verticillata*
- Chokecherry, *Prunus virginiana*
- Pin Cherry, *Prunus pensylvanica*
- Common Elder, *Sambucus canadensis*
- Red Osier Dogwood, *Cornus sericea*
- Prairie/Tall Cordgrass, *Sporobolus michauxianus*
- Virginia Wild Rye, *Elymus virginicus*
- Northern/Harlequin Blue Flag Iris, *Iris versicolor*
- White Meadowsweet, *Spiraea alba*
- Common Boneset, *Eupatorium perfoliatum*
- Serviceberry, *Amelanchier spp.*
- Northern Bayberry, *Morella pensylvanica*
- Rhodora, *Rhododendron canadense*
- Sweet Gale, *Myrica gale*
- Rock Harlequin, *Corydalis sempervirens*
- Native willows, *Salix spp.*
- Fireberry Hawthorn, *Crataegus chrysocarpa*
- Bog Birch, *Betula pumila*
- Mountain Blue-eyed Grass, *Sisyrinchium montanum*
- Cutleaf Coneflower, *Rudbeckia laciniata*
- Seaside Goldenrod, *Solidago sempervirens*
- Pearly Everlasting, *Anaphalis margaritacea*
- Tall Hairy Flat-top White Aster, *Doellingeria umbellata*

SUGGESTED DIGITAL RESOURCES

This guide provides high-level information on invasive species control, native species planting, and more. However, this information is not exhaustive and is often not enough to make informed decisions. We recommend that you consult other resources from the PEIISC and other reputable sources of information to supplement the information provided in this guide. See the list below for more sources to consult.

PEIISC - A Guide to Invasive Plant Species Planning, Identification, and Management on Prince Edward Island, Canada (1st Edition): This guide provides in-depth information on available management techniques for common invasive plant species threatening PEI's landscape. It also offers additional native plant alternatives, helps with the identification of invasive species, and more. Information is sourced from reputable sources, but because it is now a few years old, you may want to ensure that it is still current.

- Available from: [https://peiinvasives.com/wp-content/uploads/2023/06/A%20Guide%20to%20Invasive%20Plant%20Species%20\(1st%20Edition\).pdf](https://peiinvasives.com/wp-content/uploads/2023/06/A%20Guide%20to%20Invasive%20Plant%20Species%20(1st%20Edition).pdf)

PEIISC - A Guide to Invasive Insect Identification and Management on PEI: This guide provides in-depth information on available management techniques for common invasive insect species threatening PEI's landscape. It also helps with the identification of invasive insect species, ways to prevent invasive insect spread, and more. Information is sourced from reputable sources, but because it is now a few years old, you may want to double-check that it is still current.

- Available from: <https://peiinvasives.com/wp-content/uploads/2024/05/A-Guide-to-Invasive-Insect-Identification-and-Management-on-PEI-PEI-Invasive-Species-Council-March-2024.pdf>

PEIISC - A Monitoring and Management Protocol for Invasive Species in Riparian Areas on Prince Edward Island:

This guide provides extensive information on invasive species management within riparian areas. Because these areas are extremely sensitive to disturbance and often legally protected, additional precautions must be taken during the management process to minimize negative impacts.

- Available from: <https://peiinvasives.com/wp-content/uploads/2023/06/PEIISC-Monitoring-and-Management-Protocol-for-Invasive-Species-in-Riparian-Areas-on-Prince-Edward-Island-1.pdf>

PEIISC - A Visual Guide to Monitoring and Management Timings on PEI: Invasive species may require different management tactics depending on the time of year, or are best managed at a particular time of year. This spreadsheet offers suggestions for timing management actions and choosing which management tactics are most suitable for the target time.

- Available from: [https://peiinvasives.com/wp-content/uploads/2023/06/A%20Visual%20Guide%20to%20Monitoring%20and%20Management%20Timings%20on%20PEI%20\(1st%20Edition\).xlsx](https://peiinvasives.com/wp-content/uploads/2023/06/A%20Visual%20Guide%20to%20Monitoring%20and%20Management%20Timings%20on%20PEI%20(1st%20Edition).xlsx)

PEIISC - Invasive Species Gallery & Invasive Species Profiles: Visit our online invasive species gallery to access detailed profiles on some of PEI's most prolific and problematic invasive species. Learn about identification, control, and more with detailed, single-species information.

- Available from: <https://peiinvasives.com/invasive-species/>

PEIISC - Replanting for Resilience: A Checklist to Restore PEI's Natural Landscape: In the wake of hurricane Fiona, the PEIISC put together this guide for those seeking guidance in their efforts to restore PEI habitats and replant their properties.

- Available from: <https://peiinvasives.com/wp-content/uploads/2023/06/PEIISC-Replanting-for-Resilience -Checklist-to-Restore-PEIs-Natural-Landscape.pdf>

PEIISC - Native Plant Palette: Our native plant palette is designed to help you make informed decisions and choose the right native plantings for your yard. It provides bloom times and colours to ensure you always have something that fits your aesthetic, provides natural beauty, and supports pollinators throughout the growing season.

- Available from: <https://peiinvasives.com/new-native-plant-palette/>

RECOMMENDED READING

Some excellent literature for those seeking additional information on native and invasive plant species. Note that not all species featured as being native in these guides will be native to PEI, despite being native to the areas covered in the guides. To confirm whether a plant is native, reach out to the PEIISC, or check the status of the plant on the Atlantic Canada Conservation Data Centre Database.

Native Trees, Shrubs, and Vines of Prince Edward Island - A Pictorial Library

David D. Carmichael, Tellwell Talent, 2020. "A comprehensive visual library for the identification of native tree, shrub and vines of Prince Edward Island including, but not limited to, mature height, culture, ornamental characteristics, Provincial distribution, propagation and common pests."

Native Plants of the Northeast - A Guide for Gardening & Conservation

Donald J. Leopold, Timber Press, 2005. "No other single volume on native plants has such comprehensive horticultural coverage as Native Plants of the Northeast: A Guide for Gardening and Conservation. Nearly seven hundred species of native trees, shrubs, vines, ferns, grasses, and wildflowers from the northeastern quarter of the United States and all of eastern Canada are included. Each plant description includes information about cultivation and propagation, ranges, and hardiness. An appendix recommends particular plants for difficult situations, as well as attracting butterflies, hummingbirds, and other wildlife."

Mi'kmaq Medicines - Remedies and Recollections

Laurie Lacey, Nimbus Publishing, 2012. "In this delightful book, Laurie Lacey's reflections on the magical world of plant life and the gathering of remedies chronicles more than 70 plants used by the Mi'kmaq as medicines. Since the Mi'kmaq healing process begins with the gathering and preparation of medicines, Lacey takes us into swamps and bogs, the barrens and woods, to explore the habitats of plants with healing properties. He then illustrates each medicinal plant and describes its traditional use or uses. Whether one is hiking through a field listening for the sound of the "sacred plant," the yellow rattle, exploring bogs in the hope of finding the elusive blue flag, or simply interested in the Mi'kmaq approach to health and healing, Mi'kmaq Medicines will prove a helpful and enjoyable companion."

How to Eradicate Invasive Plants

Teri Dunn Chace, Timber Press, 2013. "How to Eradicate Invasive Plants offers a clear, practical solution to the increasingly common problem of invasive plants. Clearly written and easy-to-use, Teri Dunn Chace shows you how to recognize more than 200 common invasive plants and offers organic and responsible chemical eradication options for each species. With this reference on their shelves, gardeners, landscapers, and managers of public and private land across the country can confidently tackle the invasive plants to make room for a sustainable plant community!"

The American Woodland Garden - Capturing the Spirit of the Deciduous Forest

Rick Darke, Timber Press, 2002. "North America's eastern half, roughly from the Midwest to the Atlantic, was once a great deciduous forest. Although centuries of human intervention have cleared much of the land, the timeless forest remains in the spirit of the place. Today, even the shortest period of human neglect allows for the resurgence of the process of forest creation. The greatest gardens — and happiest gardeners — in this area will be those that take into account the nature of the land. In his unique, and often thought-provoking new book, award-winning author Darke promotes and stunningly illustrates a garden aesthetic based on the strengths and opportunities of the woodland, including play of light, sound, and scent; seasonal drama; and the architectural interest of woody plants."

RECOMMENDED READING, CONTINUED

The Northeast Native Plant Primer - 235 Plants for an Earth-friendly Garden

Uli Lorimer, Timber Press, 2022. "Your garden can make a difference if you choose plants native to our Northeast region. From reducing maintenance tasks to attracting earth-friendly pollinators such as native birds, butterflies, and bees, the rewards will benefit you and your backyard's ecosystem. Native plant expert Uli Lorimer of the Native Plant Trust makes adding these superstar plants easier than ever before, with proven advice that every home gardener can follow. This incomparable sourcebook includes recommended native trees, shrubs, vines, ferns, wildflowers, grasses, sedges, and annuals. It's everything you need to know to create a beautiful and beneficial garden."

Through the Seasons - A Botanical Odyssey of the Native Plants of the Northeast

Michael Adamovic, Trafalgar Square Books, 2025. "Perfect for plant lovers, Through the Seasons is a visually stunning resource showcasing the native plants of the northeastern United States in their natural habitats... Organized by habitat and season, this guide offers a visual record of native plants in their natural environments, serving as both a phenological reference and an encyclopedia of species. Beyond field use, this guidebook provides valuable insights for improving landscaping conditions and understanding which plants can thrive in cultivation. Adamovic also underscores the importance of preserving native plants, detailing for readers how they support wildlife and insects that are essential for ecosystem balance. By fostering an appreciation for these species and their seasonal roles, Through the Seasons encourages more sustainable practices for a healthier natural environment."

Native Plants for New England Gardens

Mark Richardson and Dan Jaffe, Globe Pequot Publishing, 2018. "Native plants are drought tolerant, disease resistant, wildlife friendly, and environmentally sound. Experts increasingly encourage gardeners to use natives exclusively. This handy and practical guide focuses on 100 great native flowers, ground covers, shrubs, ferns, and grasses that will thrive in New England gardens. The presentation is aimed at gardeners, who want concise, practical information. It will also include material on the importance and desirability of using native plants. The heart of this book is 100 two-page spreads, one for each species. The spreads will include facts about the plant of use to a gardener (not a botanist)—where it grows best, when it blooms, the soil conditions in which it thrives, its appeal to wildlife, sunlight requirements, how high it grows, how to propagate it, and how to avoid any problems particular to the species. Each spread will also feature two color photos."

50 Plantes Envahissantes - Protéger la Nature et l'Agriculture

Claude Lavoie, Les Publications du Québec, 2019. "Le tout premier guide tant attendu sur les plantes envahissantes de l'Est du Canada. Les plantes envahissantes partagent nos milieux de vie depuis longtemps. L'herbe à poux, le myriophylle, la renouée, le roseau... tout un cortège de plantes venues d'ailleurs occupent de plus en plus de place dans nos espaces naturels et cultivés... Ce livre présente 50 plantes envahissantes du Québec, de l'Ontario et des Maritimes. Il décrit leur biologie, leur répartition, leurs impacts et les moyens de freiner leur prolifération. Les rubriques présentent aussi les espèces sous une toute autre perspective. Illustré avec près de 200 photographies et 50 cartes, le contenu est clair et vulgarisé. Par sa documentation rigoureuse (près de 1 900 références) et l'analyse critique qu'il propose, cet ouvrage saura renseigner les étudiants et appuyer la prise de décision des techniciens et professionnels en sciences de l'environnement, en agronomie et en aménagement du territoire. Il intéressera toute personne, du spécialiste au citoyen, soucieuse de préserver sa santé et l'intégrité de son environnement ou de ses productions agricoles."

RECOMMENDED READING, CONTINUED

Wild Foods of Prince Edward Island

Kate MacQuarrie, Acorn Press, 2025. "Prince Edward Island is famous for potatoes and seafood, but our forests, meadows, marshes, and shores are home to hundreds of species of edible plants and fungi. Of course, edible and palatable are not the same and award-winning biologist and forager Kate MacQuarrie knows the difference! She's chosen 30 of her favourite wild foods, representing all seasons and habitats, and not only tells you how, when, and where to harvest but also shares some of her personal recipes. Foraging can (and should) be elevated from the basic "can I eat this?" to a tool that helps people see plants, fungi, and the world around us in new ways. For each species in this book, fascinating and little-known information is provided to pique the reader's curiosity. From the luminescent flowers of Evening Primrose to the insect-repelling properties of Pineapple Weed, virtually everyone will learn something new, fun, and interesting."

Eating Wild in Eastern Canada - A Guide to Foraging the Forests, Fields, and Shorelines

Jamie Simpson, Nimbus Publishing, 2018. "From fiddleheads to spruce tips, wild food can be adventurous and fun—with the right guide. In *Eating Wild in Eastern Canada*, award-winning author and conservationist Jamie Simpson (*Journeys through Eastern Old-Growth Forests*) shows readers what to look for in the wilds and how and when to collect it. Grouping foods by their most likely foraging locations—forests, fields, and shorelines—and with 50 full-colour photographs, identification is made accessible for the amateur hiker, wilderness enthusiast, and foodie alike. Includes historical notes and recipes, cautionary notes on foraged foods' potential dangers, and interviews with wild-edible gatherers and chefs. While gathering wild edibles may be instinctive to some, there is an art to digging for soft-shelled clams and picking highbush cranberries, and Simpson joyfully explores it in this one-of-a-kind narrative guidebook."

Native Alternatives to Invasive Plants

C. Colston Burrell, Brooklyn Botanic Garden, 2006. "The biggest enemy of any garden is not a pest, disease, or poison, it's any plant with tougher survival skills than the plants it competes with. The best way to weed out the invaders is with this fiendishly clever guide to native plants that can seek and destroy the top 100 most unwelcome perennials, grasses, vines, shrubs, and trees. While replacing the invaders, the beautiful, hardy native plants described here also attract native birds and butterflies, while turning away their own enemy invaders. Word-and-picture guides provide tips on care and maintenance, while helpful at a glance boxes depict shapes, sizes, best locations, and most attractive features of each native alternative."

A Guide to the Identification and Control of Exotic Invasive Species in Ontario's Hardwood Forests

Lisa M. Derickx and Pedro M. Antunes, Algoma University, 2013. "This is the first comprehensive guidebook for terrestrial exotic invasive species in Ontario, Canada. It focuses on the biology, ecology and management of species that invade hardwood forests, which are major natural resource in Canada. The forestry sector accounts for billions of dollars annually and many thousands of jobs. The book is divided in two main sections. The first provides an introduction to the importance of hardwood forests in Ontario as well as an overview about management practices. The second section focuses on invasive species accounts for fourteen plants, five insects and six pathogens. These species were selected based on science-based criteria stemming from their economic, environmental and societal effects. The book is aimed at a broad audience, including academics, students, natural resource managers, woodlot owners and the general public."