The Canadian Coalition for Invasive Plant Regulation (CCIPR) is calling for the Federal Government to regulate invasive plants in the horticultural and the pet/aquarium trade to prevent the further degradation of our ecosystems. Failure to act would not only erode our country’s biodiversity, but it would also result in Canada reneging on our international obligations.

**Who:** CCIPR (pronounced “sipper”) is a coalition of volunteers, representing organizations and individuals from coast to coast. Founded in 2022, it has developed six recommendations for government and industry to improve policies, tools, and regulations for invasive plant management in Canada, as these plants are harming our economy, environment, and public health. In May 2023, it released an in-depth white paper (available [here](https://ccipr.ca/publications/)) detailing the current risks to our biodiversity and offering insight into what we can do to change Canada’s current path.

**What:** According to a report published by the World Health Organization (WHO), “biodiversity loss is happening at unprecedented rates, impacting human health worldwide.” In Montreal last December, Canada (which is part of the United Nations Biodiversity Conference) agreed to be part of the Kunming-Montreal Global Biodiversity Framework. It committed to reduce the rate of introduction and establishment of non-native invasive species by at least 50 percent by 2030. Canada has seven years to achieve this goal, but it is not positioned to do so.

The ornamental/horticultural industry is the primary pathway for the introduction of non-native invasive plants entering Canada. However, Canada’s policies, regulatory tools, and resource allocations are inadequate to control the flow of ornamental invasive plants sold through the nursery, pet/aquarium trade or ecommerce.

The number of invasive plant species in Canada has increased by 15% over the last decade. These invaders crowd out native plants fracturing our ecosystems, cause millions of dollars in damage, and in some cases, affect human health. Estimates show about $15 billion has been spent on invasive plant management in Canada since the 1960s, and that number will continue to grow without change. When invasive plants displace native plants, they disrupt key relationships including the food chain. About half of all insects are herbivores, and about 70% of those are specialists that can only feed on a narrow range of native plants.

We don't have the right regulations in place to stop new invasive plants from being introduced. The laws we have are focused on plant pests that affect agriculture and forestry rather than biodiversity. Additionally, we need to reduce or eliminate the sale of the invasive species already in Canada and raise awareness of their dangers.

**How:** CCIPR’s goal is to reduce the sale of invasive plants through the horticultural and pet/aquarium trade to safeguard biodiversity and human health. It has outlined six recommendations for government and industry to improve policies, tools, and regulations.

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| ***One:* Create a national** **science-based plant risk assessment database.** Canada is not currently collecting evidence of how invasive plants are affecting our ecosystems. This information needs to be gathered and shared nationally, provincially, and with neighbouring states in the US.  ***Two:* Require that all imports of plants new to Canada undergo risk assessments.**This is something New Zealand and Australia are doing. This will limit new problem plants coming into the country.  ***Three:* Ban the sale and movement of high-risk invasive plant species.** The risk assessment database would help the Federal Government identify which species are top priority and crack down on these offenders ASAP.  ***Four:* Educate the public with labels at the point of sale.** New York State already does this, and it helps people make better choices when shopping for plants. Gardeners assume if it's for sale, it’s OK. But that’s not the case. Just like with energy efficiency stickers (EnerGuide) on appliances, labelling helps consumers be informed.  ***Five:* Public education campaigns need funding.** Organizations across the country need resources to be able to enact change at a community level, both to educate the public and remediate the damage done by invasive plants.  ***Six:* Encourage the adoption of the National Voluntary** [**Code of Conduct**](https://canadainvasives.ca/wp-content/uploads/2019/06/2019-01-16_CCIS_Code_of_Conduct_FINAL.pdf) **for the Ornamental Horticultural Industry as a short-term corrective measure.** There are more beneficial plants that can be sold than problematic ones, and we are encouraging the industry to adopt this mindset today. |

**Quick Facts on Invasive Plants in Canada**

* An invasive plant is one that is harmful to the environment, economy, or society, including human health.
* Studies around the globe indicate that the ornamental/horticultural industry is the primary route for invasive plant introductions. This has been confirmed by the Canadian Food Inspection Agency (CFIA).
* Invasive plants are sold without warnings labels and purchased by consumers unaware of the risks.
* Invasive plants can easily escape home gardens into the wilderness. Their seeds can be dispersed by wind, water, or hitchhike on vehicles, people, and pets. The plants can also be spread when animals eat the seeds. Some invasive plants can spread via rhizomes or runners, as well.
* The number of invasive plant species has increased by 15% over the last decade. There are now more than 550 plants classified as invasive in Canada as of 2019 (555 in 2019 vs. 486 in 2006).
* About 58% of invasive plant species appear to have arrived in Canada as the result of deliberate introduction.
* British Columbia, Ontario, and Quebec have the highest numbers of invasive species, while Nunavut has the lowest.
* The Federal Government currently has regulations for the plants and animals in the agricultural sector, but current regulations fail to safeguard our ecosystems from invasive plants in city and rural settings, as well as forests and waterways. Measures to prevent the spread of ornamental invasive plants at provincial or territorial borders are inconsistent or non-existent. A very small number of invasive plants in the horticultural trade are currently regulated.
* The impact of introduced species is not always immediate, and the risks posed by plants can easily be missed by gardeners, scientists, and policymakers alike. That is why CCIPR is recommending Canada mandate risk assessments (paid for by importers) for all new plants. New Zealand and Australia both have Biosecurity Acts that require this. Today, Canada does not.
* There is insufficient data on the impact of all invasive plants, however we know that Canada has directed at least $15 billion since 1960 toward invasive plant management, with the majority expended over the last two decades, according to InvaCost. Reporting on prevention and management is not uniform. InvaCost believes spending is underreported and that the $15 billion estimate is off by at least 30 per cent.
  + The Government of Canada invested an additional $2.3 billion over five years in Budget 2021 for the environment, including money earmarked to “take action to prevent priority species at “imminent risk of disappearing, including through partnerships with Indigenous peoples. Taken together with funding provided for the Nature Legacy Initiative announced in Budget 2018, this represents the largest investment in nature conservation in Canada's history.
* According to the UN, the planet is experiencing a dangerous decline in nature because of human activity. It is experiencing its largest loss of life since the disappearance of the dinosaurs. One million plant and animal species are now threatened with extinction, many within decades.
  + When invasive plants displace native plants, they disrupt key relationships including the food chain. About half of all insects are herbivores, and about 70% of those are specialists that can only feed on a narrow range of native plants.
  + In the case of chickadees, for example, they require 70% native plant species biomass to sustain their populations. Native plants are host plants for many caterpillar types. Chickadees consume about 500 caterpillars a day, when they have babies in the nest! If we don’t protect our biodiversity and the plants that keep our ecosystems sustainable, then we are looking at widespread damage across a variety of non-plant species too.
  + A report published in the journal *Science* in 2019 found bird populations in the U.S. and Canada dropped by nearly 3 billion, compared to levels in 1970. It noted “forests alone have lost 1 billion birds. Grassland bird populations collectively have declined by 53%, or another 720 million birds. Habitat loss is likely to be a driving factor in these declines.”
  + In late 2022, the most comprehensive survey of the country’s biodiversity ever undertaken, [*The Wild Species 2020: The General Status of Species in Canada*](https://wildlife-species.canada.ca/species-risk-registry/virtual_sara/files/reports/Wild%20Species%202020.pdf), was released. It found that one in five wild species is in danger of disappearing from Canada including 50 bird species, but also mammals, bees, and butterflies.  It also identified 598 species of vascular plants that may be at risk in Canada.

**Why:** Many Invasive plants are sold to the public by the horticultural industry, as well as by the pet/aquarium trades. Invasive plants represent a small percentage of all plants sold, but they cause major ecological damage. CCIPR’s white paper and appendix detail dozens of examples in Canada. Here is one:

***Tree-of-heaven:*** The Canadian Food Inspection Agency has recognized that tree-of-heaven is likely to harm Canada’s environment, the economy, and public health. It issued an alert: “Do not plant tree-of-heaven. Consider removing tree-of-heaven from your property.” However, it has taken no regulatory action. This is of major concern and a prime example of how we need legislation and not just warnings for high-risk plants like this. Here are things we know about tree-of-heaven. Originally from China, it’s the fastest growing tree in North America crowding out native trees. It also releases chemicals into the soil that are toxic to other plant species and it’s the host plant of the spotted lanternfly. The lanternfly is an invasive insect that is regulated in Canada because of its threat to the Canadian grape, fruit trees, and forestry industries, as well as the environment. This species has been prohibited across the EU, in New Zealand, as well as in several U.S. border states: (ME, MN, NH, NY, VT, WA, WI), yet you can still order this plant into Canada and plant it. Canada can and must do better. Federal regulation of species like tree-of-heaven would avoid an inconsistent province-by-province approach to legislation and improve compliance.

**Frequently asked questions:**

**Why has the government not recognized the gap in regulations and developed its own plan?**

It’s complicated. No one ministry or department is responsible for this issue, and there is confusion about what regulations can be applied and what laws might have to change.Environment and Climate Change Canada (ECCC), whose focus is on protecting the environment, developed the *Invasive Alien Species Strategy for Canada* in 2004 (working with its provincial and territorial counterparts). However, the ECCC does not have regulatory authority over invasive plants. The *Invasive Alien Species Strategy for Canada* noted: “Although responsibilities for environmental protection are shared across federal departments and agencies, a lack of coordination has meant that accountability has not been fully instituted.” Not much has changed in almost two decades.

Invasive Alien Species includes all species, not just plants, so it's even a greater number of organizations involved. The Canadian Food Inspection Agency (CFIA) has regulatory control over invasive plants, but its focus is mainly food security. CCIPR believes that the status quo of fragmented ownership and inaction cannot continue and that we must act now to protect Canada’s Nature Legacy.

**Is CCIPR the first group to call for action? Why haven’t other environmental groups identified this problem?**

CCIPR is not the first group to voice concerns, but our scope is narrow with a specific outcome target. In fact, there have been several calls for action, including from the government itself. In 2015, the government released the[*2020 Biodiversity Goals and Targets for Canada*](https://publications.gc.ca/collections/collection_2016/eccc/CW66-524-2016-eng.pdf)in response to the United Nations Convention on Biological Diversity. It consisted of four goals with 19 targets. Target 11 directly refers to invasive species, including plants. In 2018, [an interim report](https://www.biodivcanada.ca/national-biodiversity-strategy-and-action-plan/2020-biodiversity-goals-and-targets-for-canada) was done to update those targets. [Target 11](https://www.biodivcanada.ca/national-biodiversity-strategy-and-action-plan/2020-biodiversity-goals-and-targets-for-canada/canada-target-11) is reported as on track, but no update has been given in the last five years.

**Target 11:** *By 2020, pathways of invasive alien species introductions are identified, and risk-based intervention or management plans are in place for priority pathways and species.*

In 2017, there was an Invasive Alien Species Task Force created which called for improved federal leadership, coordination, and regulatory tools. To date, none of those recommendations have been implemented, not even formalizing the task force.

In 2019, the Office of the Auditor General of Canada noted serious gaps in oversight of invasive species. The report recommended that the Federal Government develop a more cohesive national approach to invasive species prevention and management.

**What are our international obligations?**

Canada is part of the United Nations Biodiversity Conference. In December 2022 (in Montreal), Canada agreed to be part of the Kunming-Montreal Global Biodiversity Framework (GBF). The plan includes concrete measures to halt and reverse nature loss. There are four goals with 23 targets in the framework, including **Target 6:** *“Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 percent, by 2030, eradicating or controlling invasive alien species especially in priority sites, such as islands.”*Canada has agreed to do this.

**Have we made any progress on our international/CBD obligations?**

[Canada Target 1](https://www.canada.ca/en/environment-climate-change/services/nature-legacy/canada-target-one-challenge.html) is one of the 2020 Biodiversity Goals and Targets for Canada. It states that by 2020, at least 17% of terrestrial areas and inland water, and 10% of marine and coastal areas of Canada are conserved through networks of protected areas and other effective area-based measures. The Federal Government launched the Target One Challenge in 2019 and committed to increasing that number: conserving 25 percent of Canada’s land and 25 percent of its oceans by 2025. The Government [released](https://www.canada.ca/en/fisheries-oceans/news/2023/02/canadas-path-to-25-per-cent-ocean-protection-by-2025.html) an update in February 2023 that it was on track to meet that 25% goal for marine conservation. In 2015, less than one percent of Canada’s ocean space was protected. Today, that figure stands at 14.66 per cent, and Canada says it’s on track to hit 25% by 2025, and 30% by 2030.  We applaud this effort and know that coordinated efforts can have a positive impact on the spread of invasive plants in Canada too. When it comes to protecting 17% of terrestrial areas and inland water by 2020, though, only 13.5% of Canada's terrestrial areas and inland water was recognized as conserved at the end of 2021. Progress is being tracked in the draft [2022 to 2026 Federal Sustainable Development Strateg](https://www.fsds-sfdd.ca/)y, however, when it comes to invasive plants, they are only mentioned in the context of “invasive plant and animal species that could pose a risk to livestock, crops, and agricultural production.” This is the same approach we have now, and this is not enough to prevent the damage invasive plants do to Canada’s biodiversity.

**If no one group is responsible, are we at a stalemate?**

The Federal Government made commitments as part of the Convention on Biological Diversity, so it must arm its ministries with the appropriate powers and resources to meet its international obligations. The CFIA has taken steps to protect agriculture from invasive weeds, but it needs to revise its invasive plant policy to fully address International Plant Protection Convention (IPPC) requirements. In the EU, for example, member states recognized that legislative change was needed to meet their obligations under the Convention on Biological Diversity and enacted a new law. The CFIA should re-examine priorities so that the natural environment is given the same attention as the agricultural and forestry sectors. We acknowledge that the CFIA cannot hope to reduce the flow of invasive plants in the horticultural trade without the coordination and assistance of other departments (e.g., ECCC, Fisheries and Oceans Canada, Parks Canada).

**What specifically is the issue with our laws?**

There is no federal regulation today to prevent the sales and spread of ornamental invasive plants in Canada such as tree-of-heaven, Callery pear, and periwinkle, to name a few. So the responsibility for regulation of invasive plants in Canada is largely pushed onto regional governments, Indigenous communities, and non-governmental organizations where resources and tools are scarce. The public is not being served consistently or equitably across jurisdictions. Canada must improve its federal biosecurity efforts to protect the economy, human health, and the integrity of natural ecosystems.

**We already have the Canadian Council on Invasive Species, how is CCIPR different?**

We complement the work that the Canadian Council on Invasive Species and other like-minded organizations are doing by helping to answer a very specific question–why are invasive plants still allowed to be sold in Canada when we know they do harm? CCIPR’s recommendations are based on a deep examination of the current regulatory framework in Canada and the gaps within it.

**Do we have the right skills in Canada to address CCIPR’s recommendations?**

Several provinces report lack of knowledge and information (e.g., name confusion, lack of standard definitions, uncertainty about distribution and impacts) when it comes to invasive plants. A national database would help streamline information sharing. New risk assessments can also be carried out. There is even a roadmap to follow. In the late 1980s, Environment Canada deployed a way to study the risks of chemicals including organisms developed with biotechnology, with risk assessors sorting and prioritizing tens of thousands of chemicals. Thousands of chemicals have been studied so far, taking into account data already gathered and assessments conducted by other governments.  The risks are now being managed for those substances that were considered to need controls such as regulations. All draft and final assessments are available online.  A database of chemicals exists to inform the industry and public at-large. A similar process could be implemented for plants to help us meet our biodiversity targets.

**What are some examples of invasive plants causing harm in Canada?**

There are dozens of examples of invasive plants in Canada with many having serious and long-lasting, or even irreversible, impacts. Some directly threaten human health, such as giant hogweed which contains phytotoxins that can burn human skin, while others harm biodiversity and ecosystem functions such as salt cedars which can create large deposits of salt in the soil and lower water tables, threatening water quality and availability. Some others:

* Japanese barberry (*Berberis japonicum*) can host a rust disease that impacts grain production and threatens food security. It can increase the prevalence of ticks that carry Lyme disease, and alter ecosystems.
* Multiflora rose (*Rosa multiflora*) can form dense thickets that threaten habitats, ecosystems and Species at Risk. It can also increase tick populations.
* Bohemian Knotweed (*Reynoutria* x *bohemica*) can damage infrastructure.
* Amur honeysuckle (*Lonicera maackii*) threatens Species at Risk in Canada and can cause a significant increase in mosquito populations that are vectors for West Nile.
* Carolina fanwort (*Cabomba caroliniana*) produces dense mats displacing native aquatic plants and can restrict recreational activities and navigation
* Norway maple (*Acer platanoides*) can alter landscapes, displacing native understory plants and iconic species like sugar maple that are part of Canada’s cultural identity. It can impact the lifeways of Indigenous and local peoples.

**Can’t we just ban all these invasive plants today, instead of waiting for risk assessments?**

Canada follows the World Trade Organization (WTO) agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). We are bound by that agreement and plants must undergo assessment before sales can be prohibited. However, there are ways to advance our regulations to protect biodiversity. For example, the EU wrote a new regulation that sets out measures in relation to invasive alien species which enhances the capacity of the EU and member states to protect native biodiversity and ecosystems.

**Where can I find out more information on what the issues are in Canada, and how other nations have approached them?**

CCIPR has published a comprehensive white paper on the subject. It can be found on our [website](https://ccipr.ca/publications/).