NOVA SCOTIA invasive SPECIES COUNCIL

Multiflora Rose

(*Rosa multiflora*)

Photo 1. *A dense wall of multiflora rose along a hiking trail.*

Distribution in Nova Scotia:
Throughout the province

Description: Multiflora rose is a multi-stemmed woody climbing shrub in the rose family (Rosaceae) with clusters of white to pink five-petaled flowers that bloom from late May to June (Photo 2A). Small red rose hips (6 mm or less in diameter) are produced in late August (Photo 5). Leaves are compound, with 5-11 oblong, oval leaflets with serrated edges. This species is identified by the fringed/ feathery stipule found at the base of the leaf stalk where it attaches to the stem (Photo 2B). It has arching stems that give it a fountain-like growth pattern. These stems are green to red with stiff, curved thorns. Some varieties are thornless.

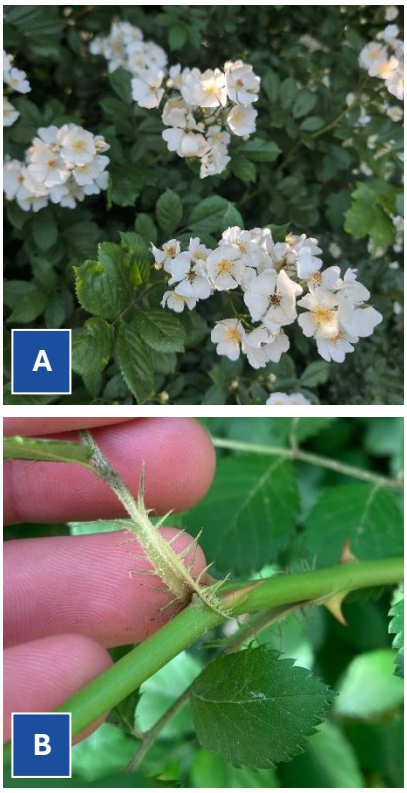

Photo 2. *Multiflora rose A) flowers and B) the fringed stipule at the base of a leaf stalk.*

Habitat & Impact: Multiflora rose is well adapted to invade a variety of environments, including pastures, fields, open woodlands, forest edges, roadsides, wetland edges, and fence rows. This aggressive species can outcompete most native plants and reduce biodiversity in habitats where it is established. Its ability to dominate the landscape alters habitat structure, reducing habitat value for native species such as ground and shrub nesting birds. Multiflora rose will also use trees or large shrubs as scaffolding to gain height. Over time this can stunt growth and kill the tree or shrub it is overgrowing.

Pathways of Spread: New multiflora rose plants can grow from cut stems and roots. Birds and other animals feed on the rose hips, dispersing the seeds over long distances. A single plant can produce upwards of 500,000 seeds per year. Seeds can remain viable in the soil for up to 20 years. This species is also a desirable ornamental plant because of its abundant flowers. Many gardeners plant this species in their gardens, unaware of its invasive qualities.

Management: Removing established populations of multiflora rose is difficult and takes several years of management to achieve eradication. Repeated treatments will be needed, and sites should be monitored for regrowth after each treatment. Failing to do so will result in ineffective control. With perseverance, control is possible. Due to the thorns, personal protective equipment such as gloves and eyewear should be worn when managing this plant species. When using non-selective methods of control it is important to assess the area for breeding bird populations at the site, as they may use muliflora rose for nesting. If present, avoid management activities during the breeding season from May to August to minimize impacts on nesting habitat.

Important! When removing multiflora rose, inspect and clean machinery, gear, and boots of soil and plant fragments before moving to a new site. Seeds, fragmented roots, and stems stuck on the bottom of boots or machinery can be spread to a new site if not removed.

Photo 3*. A young multiflora rose plant.*

- Pulling/Digging -

Early detection and removal of multiflora rose before it becomes established is the most cost-effective way to manage this species. Newly established plants, as shown in Photo 3, can be effectively removed by digging or pulling. Loosen the soil and remove as many roots as possible. Make sure to remove the root crown. Otherwise, the plants will quickly regrow.

Pulling and digging multiflora roses can effectively control smaller populations or larger individual plants. This method can also be used to control larger thickets but is labour-intensive. When controlling a larger thicket of multiflora rose, remove newly established plants around the edge to contain the spread first. Then, work inward to the centre of the infestation. Pulling and digging can be done any time of the year, but bird nesting season should be avoided as noted above. This method is best used after rain when the soil is moist and soft. Using a lever-based weeding tool, such as an Extractigator, can assist in removing larger shrubs and make the work much easier (Photo 4).

Photo 4. *An Extractigator being used to remove an invasive shrub.*

- Cutting/Mowing -

Cutting or mowing can help control multiflora rose plants but is unlikely to completely eliminate a population. Cutting multiflora rose encourages rapid resprouting and may cause further spread. Cutting is best used as a partial control in combination with other methods such as herbicides. To deplete the energy reserves in the roots, the plant should be cut 3-6 times annually for at least four years. Cuts should be made as close as possible to the ground. Cutting or mowing should be done in late spring or early summer before the plants develop rose hips and should be continued into the fall. Mulching multiflora rose can also be used as a control method but is unlikely to eradicate the plants. This treatment should be applied annually in late winter to early spring before the emergence of the leaves. Mulching should also be used in combination with other methods, and should be done over several years to exhaust the roots.

Photo 5. *Multiflora rose hips*

> ***Tip!*** Regardless of the management approach it is important to remove multiflora rose plants before they develop rose hips. This helps reduce the chances of further spread and makes disposal easier!

- Herbicides -

Herbicides are only recommended if other management methods are ineffective or impractical for the site. Herbicides must be applied in accordance with label directions and all applicable regulations. Avoid using herbicides near water or ecologically sensitive areas. For more information about pesticide regulations in Nova Scotia, please visit **https://novascotia.ca/nse/pests/faqs.asp**

Application of a systemic herbicide (one that travels through the plant's vascular system to kill the roots), such as glyphosate, is most effective on multiflora rose when used after cutting. The herbicide should be applied directly on the cut stumps within minutes of cutting the plant. When using this method, it is recommended to apply herbicide later in the season (July to September) or when the plants are dormant in winter. The herbicide is ineffective if applied in spring when sap flows upwards from the roots. Applying the herbicide directly to cut stumps allows the applicator to target the multiflora rose, reducing impacts on non-targeted plants. Foliar spray treatments can also be used to treat multiflora rose; however, this method increases the amount of herbicide needed and can kill non-targeted plants. Best results with foliar spray are achieved if applied once the leaves have fully emerged. Plants may resprout after treatment and should be monitored for at least a year. New stems must be re-treated.

- Not Recommended -

Prescribed burning is not recommended because multiflora rose regrows quickly after a fire. Girdling is also not advised, as the abundance of small stems makes this method impractical.

Disposal: Multiflora rose should not be disposed of in home composters, as this can lead to local spread. Home composters do not reach the temperatures needed to kill the plant material. Instead, multiflora rose canes should be cut into smaller pieces, placed in black contractor-grade garbage bags, double bagged, and left in the sun for several weeks to solarize. If there are no rose hips, the plant material can be piled on an impermeable surface such as asphalt or a tarp and left to dry in direct sunlight for several weeks. Once the plant material is no longer viable and fully dried, call your local waste management facility for directions on collection and disposal. Let them know if the plant material contains seeds or soil, as additional measures may be required to prevent further spread. Contact information for your local waste management facility can be found at the following website: **https://novascotia.ca/nse/waste/about.asp**. Dried plant material without rose hips can be burned on site to reduce the risk of spread. Ensure to follow local burning regulations and restrictions. Details on restrictions can be found at: **https://novascotia.ca/burnsafe/**

Report Observations!

Observations of multiflora rose should be reported on **iNaturalist**.

Uploading to **iNaturalist** is free and easy to do! Download the app on your mobile device, create an account, take photos of the organism, and upload the observation.

iNaturalist

If you prefer not to use iNaturalist, observations can be reported directly to the **NSISC** website.

To learn more about invasive species and how to prevent their spread, visit the Nova Scotia Invasive Species Councils website at: **https://nsinvasives.ca/**

Prepared by:
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References & Further Reading:

Warne, Amanda. (2018). Multiflora rose (*Rosa multiflora*) Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON.

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