

## Goutweed

### *(Aegopodium podagraria)*

#### Distribution in Nova Scotia:

Throughout the province

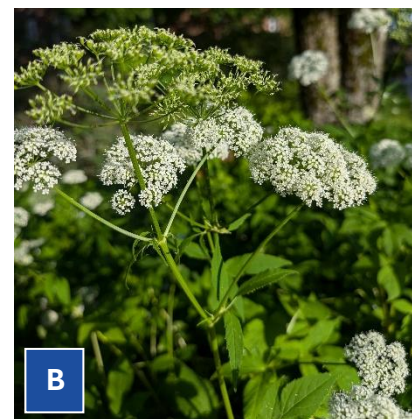
**Description:** Goutweed is a creeping herbaceous perennial of the carrot/parsley family (Apiaceae) with compound leaves. Leaflets are 3-8 cm long with toothed edges, arranged in three groups of three leaflets (Photo 2A). The leaves are predominantly basal and have long leaf stalks (petioles) that attach directly to the underground rhizomes. They may be solid green or bluish green with variegated creamy white margins (Photo 4). Flowering stems are 0.4-1 m tall and hairless. Goutweed produces an umbel inflorescence, which is 6-12 cm across, with small white 5-petaled flowers (Photo 2B). Goutweed flowers from June to August.

**Habitat and Impacts:** Goutweed is well adapted to various environments. It thrives in full to partly shaded habitats with evenly moist soils. It takes advantage of soil disturbances and aggressively invades forest understories (see Photo 1). It can invade other habitats such as abandoned fields, logged areas, grasslands, meadows, pastures, managed fields, along forest edges, roadsides, ditches, and riparian zones. This aggressive plant can outcompete most native plants and decrease biodiversity where it grows. Dense patches of goutweed change the microclimate of the forest understory and hinder the germination of native shrubs and trees.

**Pathways of Spread:** Goutweed was introduced to North America in the mid-1800s as an ornamental groundcover and herbal remedy. Unfortunately, it is still sold and planted as a groundcover. Its aggressive rhizome growth allows it to escape gardens and invade nearby natural areas easily. Goutweed can regrow from small rhizome fragments that may spread to new areas in contaminated soil or garden tools. Goutweed also produces viable seeds that germinate in bare soil under direct sunlight.



**Photo 1.** A dense patch of goutweed in the forest understory.



**Photo 2.** Goutweed's A) compound leaves and B) umbel inflorescence.



**Management:** Goutweed management requires several years, but with persistence, control is possible. It is important not to abandon control measures when the plants regrow.

#### - Cutting/Mowing -

Mowing or cutting goutweed helps slow its spread by removing leaves and stopping photosynthesis. This will not eradicate it unless combined with another method, like tarping or herbicide application. For best results, use a weed cutter or mower to cut goutweed stems as close to the ground as possible (about 2.5 cm) when the leaves are fully developed (April to May), and repeat this several times during the growing season (until mid-October). This process should be repeated for at least 3 to 5 years. Mowing should be avoided in environmentally sensitive areas or where species at risk are present, as it is a non-selective method.

#### - Pulling/Digging -

Persistent pulling and digging can effectively control smaller populations or individual goutweed plants. When pulling or digging, carefully remove all broken rhizome fragments to avoid further spread. The best results are achieved by pulling the plant from moist soil at the base of the stem, digging to a depth of 60 cm, and sifting the soil through a screen to catch any root or rhizome fragments (Photo 3). Pulling and digging can be done from April to October. However, it is recommended between June and July when the plant is at its peak growth stage and the roots have depleted carbohydrate reserves. Several years of control may be necessary to achieve eradication.

#### - Tarping -

Tarping in early spring can help control goutweed by preventing photosynthesis and depleting the plant's carbohydrate reserves. After the leaves have fully developed (April to May), cover the goutweed patch with an opaque material that sunlight cannot penetrate. Suitable options include pool liners, black plastic tarps, and cardboard. The material should extend at least one meter beyond the boundary of the targeted patch and be secured to the ground with sandbags, bricks, or landscape staples. Do not puncture the tarp. For optimal results, mow or cut the patch before covering. This method works best on patches in a smooth, flat, and sunny location, but can also be effective in less ideal sites. The tarp should remain in place for at least two years. Additional years may be required.

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



**Photo 3.** An image of fragmented goutweed rhizomes. They can easily be spotted in the soil due to the pale colouration and thicker circumference.



### - Tarping (Cont'd) -

Monitor the site regularly to ensure plants do not emerge from beneath the tarp and begin photosynthesizing. If new plants are found outside the treated area, they should be dug up, or the tarp should be extended to cover the area. This method is ineffective if any stems are allowed to photosynthesize. It is important to note that tarping is a non-selective control method that can impact native plant populations and soil health. Covering the area during mid to late summer is less effective due to the plant's substantial carbohydrate reserves.

**Tip!** To improve effectiveness, monitor the managed site for resprouting and remove any regrowing plants promptly, regardless of the management approach.

### - 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, visit <https://novascotia.ca/nse/pests/faqs.asp>

A foliar application of a systemic herbicide (one that travels through the plant's vascular system to kill the roots), such as glyphosate, can effectively control goutweed. Herbicides can be applied from May to October but are most effective if used earlier in the growing season, after the plant has fully leafed out and before it flowers. Cut the plants to 2.5 cm when controlling older growth and apply the herbicide to the emerging leaves. Multiple treatments may be required to achieve eradication.

### - Not Recommended -

Prescribed burning is not advised for controlling goutweed because the rhizomes can remain protected underground, and the plant can resprout from the rhizomes even if the top is killed. Tilling is also not recommended, as it will break the rhizomes into smaller pieces and encourage further spread at the site.



**Photo 4.** Leaves of the variegated variety of goutweed.



**Disposal:** Goutweed should never be placed in home composters for disposal, as this will cause local spread. Home composters do not reach the necessary temperature to kill the plant material. Instead, goutweed plant material should be put in black garbage bags, double bagged, and left in the sun for several weeks to solarize. 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>.

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

**Report Observations!**



Observations of goutweed 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.



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

**Prepared by:**

Nova Scotia Invasive Species Council, 2025

**Reference & Further Reading:**

Kendall, Connor. (2021). Goutweed (*Aegopodium podagraria*): Best Management Practices in Ontario. Ontario Invasive Plant Council, Peterborough, ON.

