Schenectady County Boot Brush Station Project – Final Report

The Schenectady County Invasive Species Committee (SCISC) was contracted by the Capital Mohawk Partnership for Regional Invasive Species Management (PRISM) using funds from the New York State Environmental Protection Fund as administered by the Department of Environmental Conservation to construct and install five boot brush stations at the trailheads of the Plotter Kill, Indian Kill, and County Forest preserves. The SCISC worked with Schenectady County Department of Economic Development & Planning staff through the Schenectady County Environmental Advisory Council on the logistics of the project and the Schenectady County Soil and Water District (SCSWD) staff for all construction and installation activities. All work was completed by November 2018. Each boot brush station contains a waist-high informational sign with a functional ground-level brush to remove seeds from boots and shoes. The stations will encourage hikers to clean their footwear before and after entering the preserves to help prevent the introduction and spread of non-native invasive species within the County and the overall Capital Mohawk PRISM region. Pictures of each completed boot brush station are shown in Attachment 1.

Informational signs: The SCISC utilized the CleanPlayGo campaign template to develop the informational signs for the boot brush stations, which helps to identify the potential role humans have in the spread of invasive species (Attachment 2). The SCISC designed one sign to be used at the entrances of the three trailheads at the Plotter Kill Preserve and another sign design to be used at both the County Forest and Indian Kill Preserves. Each sign contained three invasive plants that are a particular problem in each of the preserves including multiflora rose, wild parsnip, oriental bittersweet, buckthorn, Japanese knotweed, and exotic honeysuckle. These were identified using iMapInvasives data, information from Capital Mohawk PRISM surveys, and SCISC/SCSWD surveys at the preserves. The signs also incorporated information and a QR code about New York's iMapInvasives App to encourage hikers to start using it to share potential locations of invasive species within the county.

Educational Opportunities: Prior to the construction of the stations, the SCISC completed an educational presentation about the boot brush station and other invasive species information at Union College on April 18, 2018. Approximately 20 people attended including Union College students and members of AmeriCorps. To notify the public of the completion of the boot brush stations, an article about the project was included in the November 12, 2018 Schenectady County Environmental Advisory Council's e-blast newsletter. The SCISC will continue to educate the public with a portable sign and boot brush at events throughout Schenectady County and surrounding areas. The portable boot brush educational materials include an informational sign, boot brush, and posters illustrating what a constructed boot brush station looks like and how it is used. This will allow the SCISC to continue to educate the public about invasive species and the benefits of the boot brush stations.

Future Activities and Initiatives: The boot brush stations have been used by the public since the installations were completed. To increase the use of the stations, the SCISC plans to continue public outreach centered on the boot brush stations by publishing articles in news outlets and/or other environmental newsletters to notify the public of the completion of the project and encourage the use of the stations by visitors of the preserves. There is also the potential for the SCISC, in collaboration with local universities or other environmental groups, to perform future research to evaluate the effectiveness of the boot brush stations via seed capture at each station location. The SCISC also hopes to work with other communities and organizations to encourage them to install boot brush stations on their public lands to further prevent the spread of invasive species in Schenectady County.

Attachment 1 – Completed Boot Brush Stations

Schenectady County Forest Preserve

Boot Brush Station

Plotter Kill Preserve

Mariaville Road Entrance – Boot Brush Station

Plotter Kill Preserve

Coplan Road Entrance – Boot Brush Station

Plotter Kill Preserve

Lower Gregg Road Entrance – Boot Brush Station

Indian Kill Preserve

Boot Brush Station

Attachment 2 – Boot Brush Sign Designs

GIVE INVASIVE SPECIES THE BRUSH OFF

Shoes can carry the seeds of invasive plants like Japanese knotweed *(Reynoutria japonica)*. Please brush them off before entering and leaving this area.

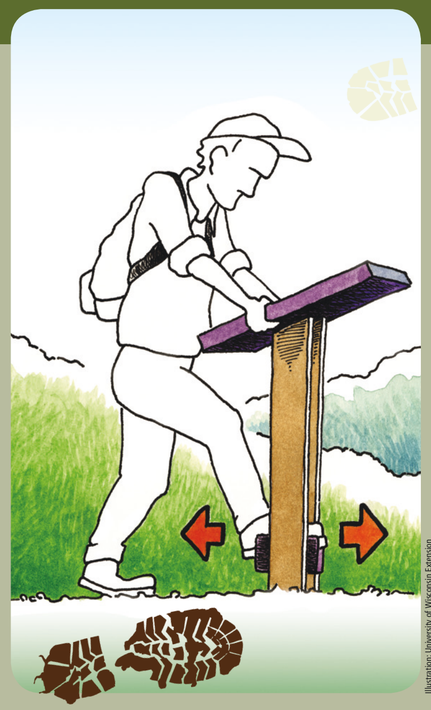

Illustration: University of Wisconsin Extension

What's The Problem?

Schenectady County is conducting surveys and carrying out measures to manage and control these and other invasive species throughout the county.

Japanese knotweed is a large plant resembling bamboo. This species spreads rapidly by underground rhizomes and can regenerate from broken stem pieces as short as an inch!

Once established, knotweed can be extremely difficult to control and quickly displaces native plants.

It is easily distinguishable by its shield-shaped leaves, purple-spotted bamboo-like stems and small, creamy white flowers.

Photo Credit: KingCounty.gov

Photo Credit: Ansel Oommen, bugwood.org

Other Invasive Plants On The Move…

Wild parsnip *(Pastinaca sativa)*

Photo: Minnesota DNR

WARNING!! Wild parsnip sap can cause burns to your skin. The juice of wild parsnip in contact with skin in the presence of sunlight can cause a rash and blistering of the skin (phytophotodermatitis). Please do not touch the plant without proper protection.

Multiflora rose *(Rosa multiflora)*

Photo: James H Miller, USDA, bugwood.org

Multiflora rose grows aggressively and forms dense thickets that crowd out native species. It produces large numbers of fruits that are eaten and dispersed by a variety of birds.

New York's iMapInvasives

Join other citizen scientists in the fight against invasive species!!

iMapInvasives

iMapInvasives is New York's mapping system for invasive species, and is used to report and share new findings. Sign up for an account and start reporting online or through the mobile app. www.nyimapinvasives.org.

Play Clean Go™

STOP INVASIVE SPECIES IN YOUR TRACKS

PlayCleanGo.org

Clean Your Gear Before Entering And Before Leaving This Site

Schenectady County New York

Sustainability at Union College

Stop The Invasion – Protect New York From Invasive Species

PRISM Partnership for Regional Invasive Species Management

SCEAC

Cornell University Cooperative Extension

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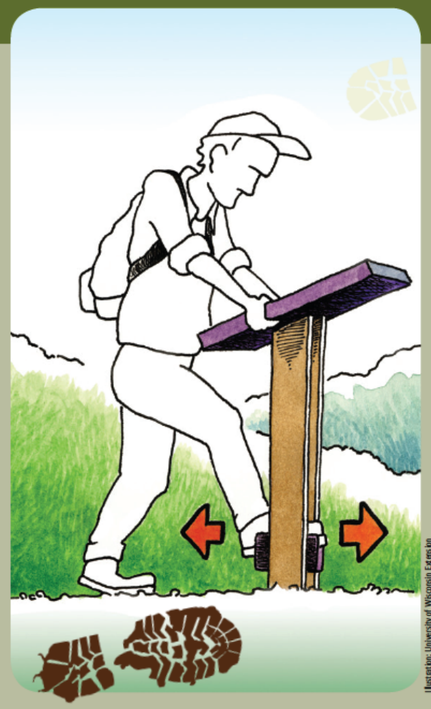

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Buckthorn *(Rhamnus cathartica)* out-competes native plants for sunlight, nutrients, and moisture.

Originally from Europe, buckthorn lacks "natural controls" like insects or disease that would keep it in check. Birds and people unknowingly make the problem worse by spreading the blue-black seeds to other areas.

Buckthorn has allelopathic characteristics that effect the growth of nearby plants. Buckthorn also contributes to erosion, degrades wildlife habitat, and lowers biodiversity.

Photo: Minnesota DNR

Other Invasives On The Move…

Exotic honeysuckles *(Lonicera morrowii, Lonicera tatarica, Lonicera maackii species)*

Photo Credit: Richard Gardner, Bugwood.org

Exotic honeysuckles are invasive because they have the ability to grow in a wide variety of habitats, even dense shade and wet soils. Exotic honeysuckles have shaggy bark which differentiates them from native species.

Oriental bittersweet
(Celastrus orbiculatus)

Photo credit: James R. Allison, GaDNR, Bugwood.org

Photo credit: Chris Evans, University of Illinois, Bugwood.org

Oriental bittersweet forms a mat that can completely cover existing vegetation displacing native plants. It girdles trees that it climbs, suffocating and eventually killing the trees.

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