

Virtual Junior Rangers

Earth Hour Service Project: Invasive Species - Plant Removal

Objective: To educate the Junior Rangers community of what is an invasive plant, local invasive species, how to prevent spread and how to remove.

Materials List: Thick leather gloves, sunscreen, bug spray, long pants and shirt, work boots

Background Information:

What is an invasive plant?

The word invasive means, coming in and taking over. Invasive plants are plants that don't belong in an area, they were brought into a place and are taking over, causing harm to the other plants and animals around them.

Sometimes people bring the plants to an area on purpose, not realizing the harm they can cause. They might have brought them to a place because they are a source of food or maybe the plant served another helpful purpose.

Most of the time, people do not bring a plant to an area on purpose, they do it by accident. Plants have seeds which can get stuck on our clothing or shoes and we carry them from one place to the next. Similarly, animals can move plant seeds that same way. Seeds can also be spread when the plant has berries and animals eat the berries. Then when the animals travel in nature and poop, out come the seeds and they're planted in a different place!

Once the invasive plants have rooted and are growing in an area, the plants can crowd the native plants that were there first and even kill them, reducing the variety of plants in an area. Sometimes the plants that are crowded out and die are extremely important for the survival of certain animals. Every native plant and animal in nature is part of a food web and when one disappears, it has an effect on many other animals and plants.

Maryland has many invasive plants and animals that live in the water and on land. Some are helpful such as the European honeybee which pollinates our food, while others are harmful. Check out this [site](#) for an example of some local Maryland invasive species.

Part of the Junior Ranger program involves giving back to nature by participating in an “Earth Hour.” This lesson details how to plan an “Earth Hour” by identifying and removing invasive plants in your local community. Fill out the worksheet as you follow the below plan.

1. Investigate one or two invasive plants in your part of the state, for more extensive lists sorted by region, visit [DNR's Statewide Eyes](#). Below are some examples of invasive plant species based on the different regions of Maryland.
 - a. Eastern: Beefsteak plant, *Perilla frutescens*
 - b. Central: Garlic Mustard, *Alliaria petiolata*
 - c. Southern: Mile a minute, *Persicaria perfoliata*
 - d. Western: English Ivy, *Hedera helix*
2. Learn how that plant came to Maryland.
3. Find out characteristics of the plant and how best to identify it.
4. Research the best method of how to remove it.
5. Can you find this plant in your yard? Go for a walk in your neighborhood or local park to look for it. No luck? Contact your local park to find out if they have invasive plants that you could visit.
6. Once you've found an invasive plant, is it in public space or in your yard?
7. Create a plan to remove it. If it's not in your yard, you must contact the property owner for permission. Pick a date and make a safety plan.
8. When picking a date, research the plant to find out if and when the plant produces seeds or berries. If it has already done so, it's actually not a good time to remove the plant, it's better to wait until next year and remove it before the berries form. Pick another plant if this is the case.
9. Create a safety plan:
 - a. Who will do the removal of the plants? Work with a parent or a guardian to make a plan. Will you invite others?
 - b. What to wear? Wear long pants and a long shirt to protect your legs and arms from things like poison ivy and thorns. This includes close toed shoes to protect your feet. Boots are best which will provide support and ankle protection.
 - c. What about bugs? There are insects everywhere in nature. Consider wearing bug spray. Ticks are found in all regions of Maryland. A special tip would be to tuck your pants inside your socks. It's quite stylish.
 - d. How do I keep up my energy? Take breaks during your hour and drink water. Staying hydrated is important when working outdoors, especially when it's hot and sunny out.
 - e. When should I do it? It's better to do physical activity when the temperature is comfortable, which in the spring and summer means earlier

in the day. No one likes a sunburn, even in the morning or on a cloudy day, you can get a sunburn. Protect yourself by wearing sunscreen and/or wearing a hat.

- f. Look into what to do with the plant once you've pulled it. Some plants need to be put in garbage bags and thrown away, while others can be left in the woods to decompose.

Additional resources:

[Watch a Maryland Park Ranger](#) talk about the invasive Garlic Mustard and learn how to pull it.

Learn about more invasive species, plants and animals, through the [Chesapeake Bay Program](#).

[Maryland Invasive Species Council](#) - Invasive Species in Maryland