



Girl Scouts of Maine Plant Native Patch Guide

*Special thanks to Molly Gerding for creating this patch program
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Introduction

Did you know?

Native plants, plants that spent hundreds of thousands of years evolving in a specific region, are necessary to support the birds, butterflies, moths, and many other animals that live in Maine. Most plants used for landscaping and sold by nurseries are non-native. This is bad for the environment because they aren't as good at supporting native wildlife. For example, oak trees, which are native to Maine, support over 500 species of caterpillars in Maine, but the non-native ginkgo tree, a species native to China, only supports 5 species in Maine. Whether humans plant native or non-native plants has a big impact on chickadees, because they need over 6,000 caterpillars just to raise one brood!

You can make a difference by educating people about native plants' impact on the wildlife of Maine!



Patch guide overview

In this patch, you will learn about why native plants are important, explore native and non-native plants in your area, plant native plants, and educate others about why native plants are important.

Step 1: Explore native plants

Step 2: Hear from an expert about native plants

Step 3: Identify native and non-native plants

Step 4: Plant native plants

Step 5: Share what you learned about native plants



Steps to earn patch

Step 1: Explore native plants—In this step, you will hear about why native plants are important to maintaining healthy ecosystems. Then, you will explore native plants in your region and learn which plants support the most biodiversity.

Grades K-3 (Daisies and Brownies)—[Watch 'Butterflies and Birds Need Native Plants - Why Native Plants Matter - Ep.2'](#). Talk with your troop, friends, or family about what you learned. Then go to the [Native Plant Finder](#). Enter your zip code and click “find native plants” to see the plants that support the highest number of butterflies and moths in your area. Answer these questions:

1. Do trees and shrubs or flowers and grasses support more butterfly and moth species?
2. Which three trees/shrubs support the most butterfly and moth species in your area? Which three flowers/grasses support the most?



Grades 4-8 (Juniors and Cadettes)—[Watch 'Butterflies and Birds Need Native Plants - Why Native Plants Matter - Ep.2'](#) and '[Prof. Doug Tallamy on Sustainable Landscaping](#)'. Share two facts you learned that you didn't know before with your troop, friends, or family. Then go to the [Native Plant Finder](#). Enter your zip code and click “find native plants” to see the plants that support the highest number of butterflies and moths in your area. Answer these questions:

1. Do trees and shrubs or flowers and grasses support more butterfly and moth species?
2. Imagine you are creating a native plant garden for your backyard. If you could only pick five species of native plants for your garden, which ones would you choose and how many butterflies and moths would these support?
3. Choose three butterfly/moth species that you would like to attract to your garden. Which plants would you choose to support these species the best?

Grades 9-12 (Seniors and Ambassadors)—Watch '[Butterflies and Birds Need Native Plants - Why Native Plants Matter - Ep.2](#)' and '[Doug Tallamy author of Bringing Nature Home](#)'. Then go to the [Native Plant Finder](#). Enter your zip code and click “find native plants” to see the plants that support the highest number of butterflies and moths in your area. Then talk about these questions:

1. Based on what you've learned, what is one message that people in your community should know about native plants?
2. Why do you think certain species of plants support more species of butterflies and moths than others, even if they're both native?
3. With this new knowledge about why native plants are important, what will you do differently in the future?

Step 2: Hear from an expert about native plants—In this step, you will hear from experts who work with native plants about why they're important, or you will visit a greenhouse to see which types of plants are sold in your area.

Grades K-12 (All levels)—Select ONE of the following activities to learn more about native plants.

1. Write down three questions you might have for an expert on native plants. Find someone in the community (like [Maine Audubon](#), [Wild Seed Project](#), or a horticulturist) to come in and talk to you about native plants.
2. Write down three questions you have for someone working in a greenhouse. Visit a greenhouse or garden center and ask someone there about which plants are native and non-native and the questions you prepared.

Step 3: Identify native and non-native plants—In this step, you will get outside and identify the plants around you, and determine whether they are native or non-native.

Prior to beginning this step, make sure you've downloaded iNaturalist on a mobile device. Each participant will also need to bring a notebook and pencil. Walk around outside and identify different native and non-native plants using iNaturalist.

Here are some quick tips for iNaturalist:

1. When you get on to iNaturalist, click “Observe” and then “Camera”. This should pull up a camera on your device. Take a picture of your plant and then click “Use Photo”.
2. Then click on “What did you see?”. It should show a list of suggestions for what it thinks it might be. If it's a good picture, you might get a few recommendations as well. You can click the “i” next to each suggestion or recommendation to see more information about it.
3. If you choose to add one as an observation (for Juniors, Cadettes, Seniors, and Ambassadors), click on the species you've decided it is. If it was planted by humans, click “Captive / Cultivated” and switch it to “Yes”. If it's wild, make sure it's on “No”. Then click “Share”.

If you choose not to add one as an observation, click “Details” in the upper left hand corner, and then click “Cancel”. It should bring you back to the same screen you started with, and you can try another plant.



Grades K-3 (Daisies and Brownies)—Use the iNaturalist app to complete the steps below. You don't have to add any plants as observations. Just focus on identifying them.

1. Start by identifying some of the landscaping around a home or building. Write down and draw the plants that have been intentionally planted by humans and whether they are native or non-native.
2. Then go on a nature walk (check out your local land trust and town properties if you don't know where to go). Write down and draw the plants that are growing wild and whether they are native or non-native. Try to identify at least three.
3. Afterwards, share the types of plants you identified with your troop, friends, or family. What were the differences between the plants you found around buildings and the ones you found that were growing wild? Why do you think this is?

Grades 4-12 (Juniors, Cadettes, Seniors, and Ambassadors)—Use the iNaturalist app to complete the steps below. As you're going, add as many of the plants you can as observations on iNaturalist (make sure you mark any plants planted by humans as "captive/cultivated").

1. Start with some of the landscaping around a home or building. Write down the names of the plants that have been intentionally planted by humans and whether they are native or non-native.
2. Then go on a nature walk (check out your local land trust and town properties if you don't know where to go). Write down the names of the plants that are growing wild and whether they are native or non-native. Try to identify at least five for Juniors and Cadettes and at least eight for Seniors and Ambassadors.
3. Afterwards, share the types of plants you identified with your troop, friends, or family. What were the differences between the plants you found around buildings and the ones you found that were growing wild? Why do you think this is?

Step 4: Plant native plants—In this step, you will have the opportunity to plant native plants from seed to make the area around you more biodiverse.

Grades K-8 (Daisies, Brownies, Juniors, and Cadettes)—Make native plant seed bombs!

1. Purchase native plant seeds (good sources are [Wild Seed Project](#) and [Maine Audubon](#)). Fall to early spring is generally the best time to make and throw seed bombs, but it depends on the types of seeds you're going to be using.
2. Then get a bowl and put together a handful of compost soil, a handful of air-dry clay, and a splash of water. ***Tip: Don't add too much water at first! Add a little bit, and if you need more, you can add that later on.*** Then form it into balls and put seeds in the center. You can throw the seed bombs around your garden, backyard, or anywhere you have permission.

Grades 9-12 (Seniors and Ambassadors)—***You will be planting native plants. If this seems too difficult or you don't have the materials, you could do the Daisies, Brownies, Juniors, and Cadettes step instead.***

1. For planting native plants, you need to first make sure you have some organic soil, sand, little pots, a roll of wire mesh, a brick, and native seeds (good sources are [Wild Seed Project](#) and [Maine Audubon](#)). When you have all of the supplies, fill the pots up with soil and sprinkle seeds on top (about 10-20 seeds per pot for larger seeds and 20-30 for smaller ones, but you don't need to count them). Then sprinkle a little bit of sand on top of the seeds, just to keep them from blowing away. Put the pots outside (late December or early January is the ideal time to do this, because most native seeds from more Northern places need a certain amount of cold days to be able to germinate). Put the wire mesh on top of them and put a brick on top of that, to prevent squirrels, chipmunks, and birds from getting to the seeds before they're mature. Then leave them out until fall, when you can take them out of the pots and plant them in the ground. For more information, see [How to Grow Natives From Seed](#).

Step 5: Share what you learned about native plants—In this step, you will spread the word about the importance of native plants to others.

Grades K-3 (Daisies and Brownies)—Tell a family member, friend, or someone you know about the importance of native plants. You can also make a poster about everything you learned.

Grades 4-8 (Juniors and Cadettes)—Decide who you want to educate about native plants and the messages you want to send. Then develop a plan for how to educate them. You can tell a family member, write a book, make a poster, film a video, make a board game, or whatever you decide.

Grades 9-12 (Seniors and Ambassadors)—Decide who you want to educate about native plants and the messages you want to send. Then develop a plan for how to educate them. This could be writing a book, making a poster, filming a video, making a board game, posting on social media, or whatever you decide.



Resources

Websites

- Wild Seed Project—<https://wildseedproject.net/>
- iNaturalist—<https://www.inaturalist.org/>
- Native Plant Finder—<https://www.nwf.org/nativeplantfinder/>
- Maine Audubon—<https://maineaudubon.org/>
- How to Grow Natives From Seed—<https://wildseedproject.net/how-to-grow-native-s-from-seed/>

Videos

- Butterflies and Birds Need Native Plants - Why Native Plants Matter - Ep.2—<https://youtu.be/t1CcTqYd15I>
- Prof. Doug Tallamy on Sustainable Landscaping—<https://youtu.be/NTbPNwNIoLs>
- Doug Tallamy author of Bringing Nature Home—<https://youtu.be/KFZgOVszhi0>

Resources not included in guide

- Why Native Plants Matter—<https://www.audubon.org/content/why-native-plants-matter>
- Seek by iNaturalist—https://www.inaturalist.org/pages/seek_app
- Native Plants: A Maine Source List—<https://extension.umaine.edu/publications/2502e/>
- Go Botany—<https://gobotany.nativeplanttrust.org/>
- Maine Native Plant Finder—<https://mainenativeplants.org/>

