

Wild Ones Chesapeake Bay Chapter

From Bloom to Buzz: Protecting Pollinators and Beneficial Insects Amid Climate Change

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Short Description: Connect the dots between Climate Change, native plants, pollinators, and beneficial insects while hearing actionable advice for gardeners. From habitat creation to learning about fascinating insect-plant relationships, discover how your greenspace can become a refuge for biodiversity.

This handout outlines key learning objectives and provides space for you to take notes as you explore different ways to support pollinators and beneficial insects.

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Partners in Pollination: Native Plants & Their Insect Allies

☐ Explain why native plants are important.

Native plants- A plant that has evolved naturally in a specific region or ecosystem over a long period of time. They have adapted to physical conditions and co-evolved with the other species in the system.

☐ Understand how insects support plant reproduction and genetic diversity through cross-pollination.

Partners in Pollination: Native Plants & Their Insect Allies

- ☐ Identify key insect pollinators and understand the difference between generalists and specialists.

Why Insects Matter: Critical Roles Within Our Ecosystems

- ☐ Identify the main ecological roles insects play and how they support our green spaces.
- ☐ Understand insects often play multiple roles and their impact (negative or positive) depends on the context.

Insects Under Pressure: Challenges in a Changing World

☐ Identify major threats to insect populations, including climate change, pesticide use, and habitat loss.

☐ Explain how these threats affect insects, such as through pesticide exposure or phenological mismatches.

Grow the Change: Creating Insect-Friendly Gardens & Communities

☐ Explore four aspects of creating insect habitat:

☐ 1. Incorporate a diversity of native plants
(diversity, regionality, phenology, design).

Grow the Change: Creating Insect-Friendly Gardens & Communities

Plant lists by ecoregion:

- <https://www.Pollinator.org/guides>
- <https://www.HomeGrownNationalPark.org/keystone-container-gardening/>

Other plant lists:

- <https://xerces.org/pollinator-conservation/pollinator-friendly-plant-lists>
- <https://dnr.maryland.gov/criticalarea/Documents/chesapeakenatives.pdf>

2023 USDA Plant Hardiness Zone Map: <https://planthardiness.ars.usda.gov/>

Plants to avoid in pollinator gardens:

- Double-bloom hybrids
- Tropical milkweed (*Asclepias curassavica*)
- Invasive bush honeysuckle species
- Butterfly bush (*Buddleja davidii*)

Pollinator garden design templates (Bee City USA, Howard County)

- <https://livegreenhoward.com/land/pollinators/>

Other pollinator-related resources:

- 2025 Maryland Pollinator Week toolkit:
<https://umd.box.com/s/3ak7qvo43jzu5x9flx37u0wgztivquvb>
- Maryland pollinator cards:
<https://umd.box.com/s/40sz6bmzmrhi3d4czjjox1k9dk1hagxm>
- Habitat planning for beneficial insects | Xerces Society:
https://xerces.org/sites/default/files/2018-05/16-020_01_XercesSoc_Habitat-Planning-for-Beneficial-Insects_web.pdf

Grow the Change: Creating Insect-Friendly Gardens & Communities

- ☐ Explore four aspects of creating beneficial insect habitat:
 - ☐ 2. Conserve certain bare ground patches and plant debris (leaves, stems, logs as habitat).
 - ☐ 3. Add and maintain shallow, clean water sources.
 - ☐ 4. Reduce or eliminate pesticide use (explore sustainable pest management strategies).

Resources:

- Maryland Native Plants Program: <https://extension.umd.edu/programs/environment-natural-resources/program-areas/maryland-native-plants-program/>
- University of Maryland Extension Yard & Garden Resources: <https://extension.umd.edu/programs/environment-natural-resources/program-areas/home-and-garden-information-center/gardening-resources/>
- University of Maryland Extension, Master Gardener Program: <https://extension.umd.edu/programs/environment-natural-resources/program-areas/home-and-garden-information-center/master-gardener-program/>
- Home and Garden Information Center Newsletter: <https://extension.umd.edu/resource/home-and-garden-information-center-newsletter/>
- Pollinator Partnership: <https://www.pollinator.org/>
- Xerces Society for Invertebrate Conservation: <https://www.xerces.org/>
- Maryland Native Plant Society: <https://mdflora.org/>

Pollinator Action Plan

- ☐ Create a personalized pollinator action plan:
 - ☐ What is one feature your space already has that could support pollinators? (Old plant stems, fallen leaves, bare soil patches, milkweed, fallen logs, water source, native plants, etc.)
 - ☐ What is one change you could make this season to support pollinators? (Incorporate a diversity of native plants, conserve certain bare ground patches and plant debris, add and maintain a shallow, clean water source, and/or reduce or eliminate pesticide use).
 - ☐ What is one barrier you may need to overcome and how? (e.g. "I don't know where I can buy native plants.")

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