

How to Build an Insect Hotel

Provide nesting space and shelter for insects and other small wildlife

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ENVIRONMENTAL
FINANCE CENTER



Presenter

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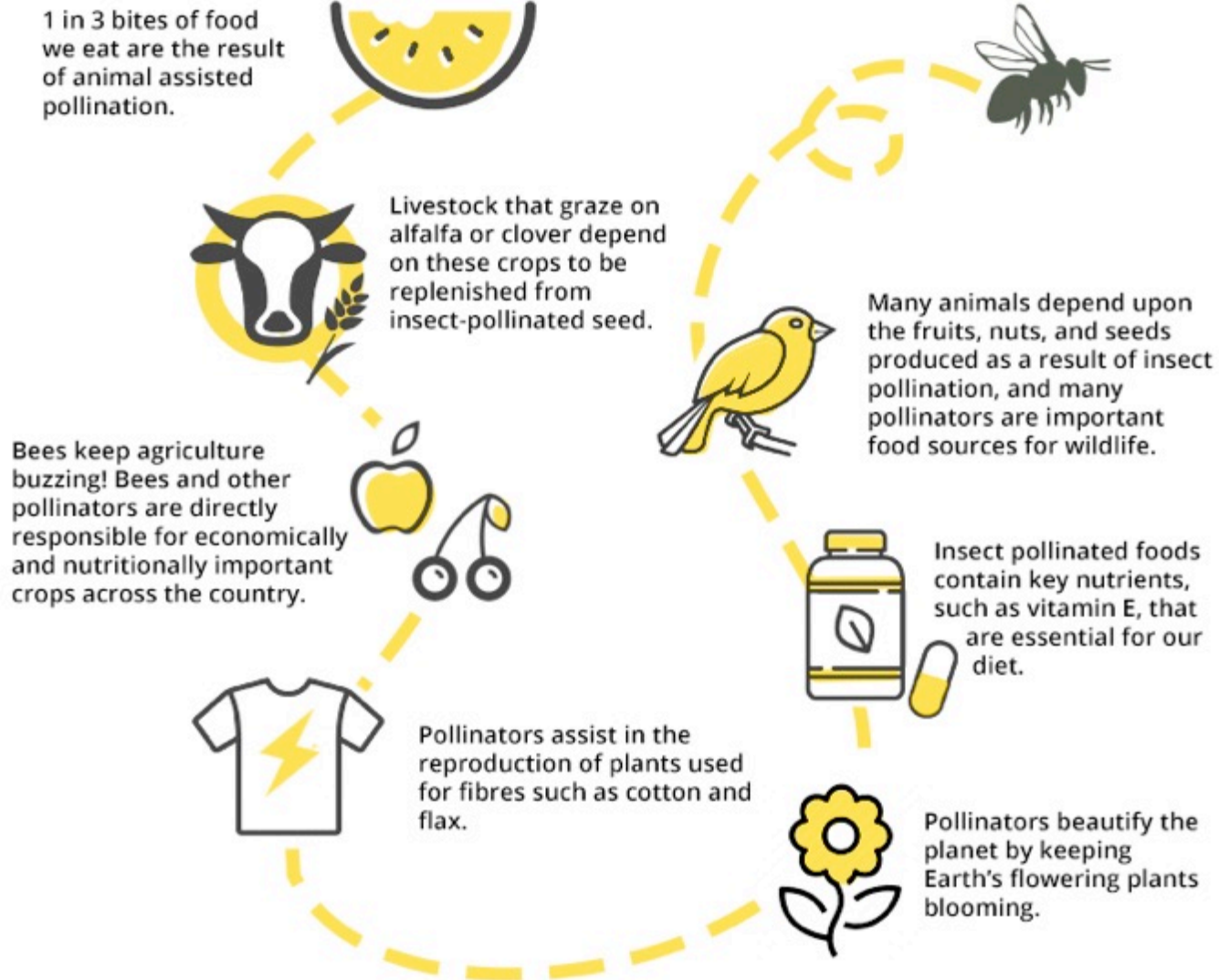


Agenda

- Why is building an insect hotel important?
- Getting Started
- Submission Requirements
- Community Spotlight
- Resources and Tools



Why is building an insect hotel important?



Pollinators and insects need our help and we need them



Why is building an insect hotel important?

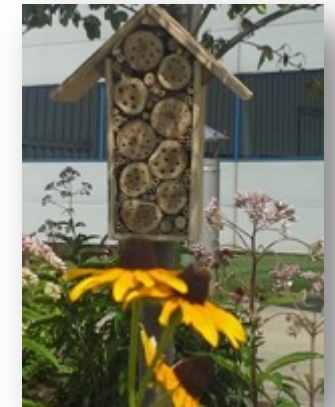
An insect hotel is one of many ways to help protect insect populations:

- Shelter
- Beautification and inspiration
- Support native ecosystems and crop production
- Encourage populations of beneficial insects
- Improve nutrient cycling



Getting Started – How

1. Research local native insect populations
2. Determine where to install
3. Determine size



Getting Started – How

4. Design and build the frame
 - a. Should have a back and a roof with some overhang
 - b. Select beneficial materials



Getting Started – How



5. Collect materials which can include
 - a. drilled wooden blocks
 - b. bundles of paper tubes, hollow sticks or grasses and dried moss
 - c. mason bricks with holes
 - d. pinecones and other organic materials



6. Add materials to the frame—can be as “messy” or as aesthetically pleasing as desired—insects don’t care, as long as they can access



Getting Started – How



7. Add wire mesh as needed
8. Maintain and monitor the insect hotel
 - a. Check the structure seasonally
 - b. Clean out opened plugs and replace bee nesting material in the late spring



- c. Report to citizen science efforts

- [Maryland Biodiversity Project](#)
- [Project Noah](#)
- [iNaturalist](#)
- [Bumble Bee Watch](#)

9. Promote and advertise the insect hotel

- a. Put it in a newsletter
 - b. Consider installing educational signage
 - c. Host webinars or workshops



Getting Started – Who should be involved?



Potential Stakeholders:

- Local community groups concerned with conservation
 - [naturalist groups](#)
 - members of the [Entomological Society of America](#)
 - butterfly clubs (e.g., [Washington Area Butterflies](#))
 - [Maryland Master Naturalists](#)
 - other naturalists or insect experts
- Local gardening or native plant experts
 - [Master Gardeners](#)
 - garden clubs (e.g., a local chapter of the [Federated Garden Clubs of Maryland](#))
 - [Maryland Native Plant Society](#)
- Local schools



Getting Started – Who should do

- Local youth groups:
 - Girl Scout and Boy Scout troops
 - Boys and Girls Club
 - Future Farmers of America chapter
 - 4-H club could learn about insect conservation in a hands-on manner by helping to design and construct the insect hotel.
 - Local high school ecology club
- Sustainability coordinators
- Green Team members
- Other local volunteers
- Invite state and county representatives



Getting Started – Considerations

Project Costs and Resource Needs

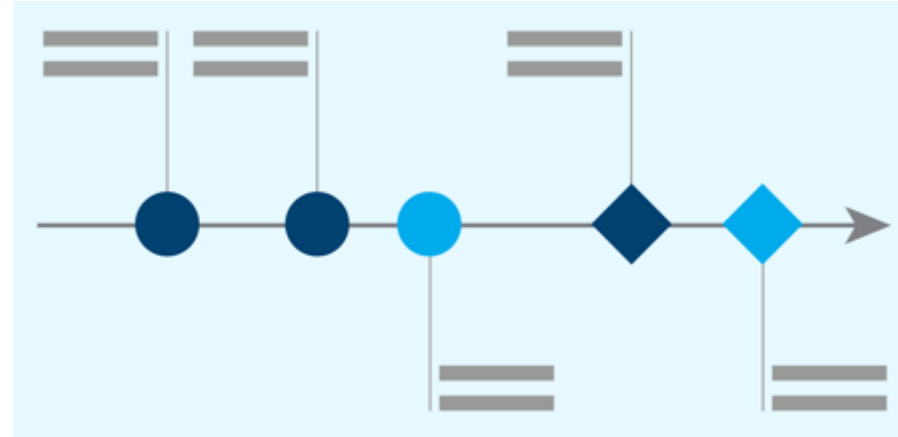
- \$100-200
- 4x4 posts (untreated wood) for ground mounting and construction of a frame
- Untreated plywood for constructing the roof, sides, back, and shelves
- Roofing shingles
- Untreated wooden blocks
- Reeds, paper tubes, or hollow stems
- Dried plant material such as leaves, seed pods, pine cones, moss, flower heads, grasses, etc.
- Twine
- Other non-toxic repurposed materials such as bricks, clay pots, etc.

**** Be sure to include maintenance materials in your budget!****


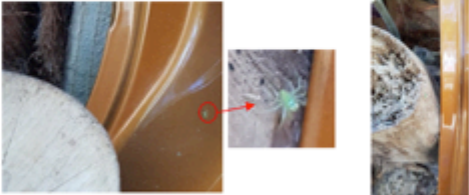



What to Do - Considerations

Timeline



Metric Reporting

Insect Hotel - Bugsland Monitoring 2018							
Date	Hour	Observer	What was observed?	Photo	Quantity	Climate Conditions	Notes
6-aug-18	2:30 PM	Karen e Paula	Birds		2	Rainy	Birds were using the Bugsland as shelter because of the rain, but when we arrived they flew away.
15-aug-18	10:00 AM	Mônica	Nothing		-	Cloudy	-
23-aug-18	11:30 AM	Karen e Mônica	Green Spider		1	Sunny	-
31-aug-18	2:30 PM	Mônica	Nothing		-	Sunny	-
05-sep-18	12:30 PM	Karen, Mônica e Paula	Nothing		-	Sunny	-
13-sep-18	1:00 PM	Mônica	Nothing		-	Rainy	-
							

Submission Requirements

- Insect hotel established or actively maintained and promoted in the past year.
- Checked for insect use and maintenance needs at least annually.
- Demonstrate how the municipality is actively supporting the Insect Hotel efforts.



Submission Requirements - Description

Description of implementation – Short narrative (300 words max) to include a brief history of how and when project was started, key actors & partners, and what direct support the municipality provided

Additional information

- Dimensions of the hotel (height, length, width)
- List of materials used
- List of insects intended to benefit, and how it benefited each insect
- Information about location
- List of Stakeholder participants (and individual community members)
- List of costs
- List of challenges or barriers



Submission Requirements - Documentation

Supporting documentation:

- Include current photos of the insect hotel, such as photos showing the whole structure and its location in the habitat, close-up photos of any features of note, and photos of insect visitors using the hotel
- GIS location of the insect hotel
- Maintenance plan
- Examples of **TWO** promotional materials
- If applicable, please upload the following:
 - Hotel construction plans
 - Signs made for insect hotel
 - PowerPoint presentations or videos of events
 - Map of insect hotels throughout the community



Community Spotlight

- Queen Anne's County Master Gardeners Insect Hotel Workshop



Community Spotlight

- Smithsonian Gardens - How to Create an Insect Habitat in Your Garden



Resources and Tools

- [Build a Bug Palace: Learn How Easy, Inexpensive Insect Hotels Can Enhance Your Habitat](#) (WHC)
- [Creating a Solitary Bee Hotel](#) (Nebraska Extension)
- [Insect Hotels](#) (Insteading article)
- [Nests for Native Bees](#) (Xerces Society)



Resources and Tools (continued)

- [How to turn invasive phragmites reeds into bee homes \(USDA\)](#)
- [Bee Basics: An Introduction to Our Native Bees \(USDA\)](#)
- [Lady Bird Johnson Wildflower Center Plant Finder](#)
- [Winners of the Wildlife Habitat Council 2018 Bug Hotel Challenge \(WHC\)](#)



Questions?

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