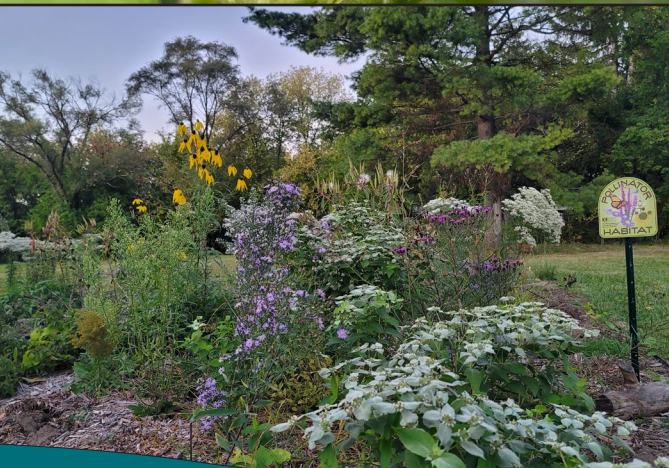


Small Habitat Plantings in Urban Areas



Why Do We Need Habitat?

Native beneficial insects, including pollinators and predators, are critically important for gardens and natural areas. Insects pollinate plants, control crop pests, recycle nutrients, decompose plant and animal waste, improve soil quality, support other wildlife by being a link in vast food webs, and more. Many insects are experiencing steep population declines, and some are considered at-risk or endangered due to habitat loss, pesticides, climate change, parasites, diseases, and other driving factors.

High-quality habitat provides nectar, pollen, and host plants throughout the growing season, includes nesting and overwintering sites, and offers protection from pesticides. Pollinator plantings can also be designed to reduce erosion and runoff, provide value-added harvestable products, and contribute to beautification and a sense of place in a neighborhood. Planting pollinator habitat is a way for farms and community gardens to help protect these indispensable animals and provide the biodiversity necessary to grow healthy foods for families and communities.

Plants Are the Foundation on Which Habitat Is Built

- ☞ Select herbaceous and woody **native plants** that fit your region, soil, sun exposure, and moisture conditions.
- ☞ Select at least **three blooming plant species per season** to provide continuous food and resources.
- ☞ Select multiple plant families and genera, with differing bloom colors, shapes, and heights, to **support biodiversity**.
- ☞ **Include native grasses & sedges** to provide for nesting and overwintering as well as to feed butterfly larvae.
- ☞ Flowering herbs, vegetables, and annuals can provide some pollen and nectar, but **prioritize native perennials for native pollinators**.

TOP TO BOTTOM—Yellow-faced bumble bee (*Bombus vosnesenskii*) visiting tomato blossom; small carpenter bee (*Ceratina* sp.) bee visiting raspberry blossom; an established pollinator planting in an urban park. (Photos: Xerces Society / Mace Vaughan; Xerces Society / Sarah Foltz Jordan; Xerces Society / Laura Rost).

Pollinator Habitat in Urban Farms and Community Gardens

Pollinator habitat can be creatively incorporated into many parts of urban farms and community gardens. Annual plants, cover crops, and blooming herbs can increase pollen and nectar. Permanent habitat, the highest quality pollinator habitat, provides reliable pollen and nectar each year and allows for safe nesting and overwintering.

Table 1. Common habitat types used to support beneficial invertebrates in urban areas.

HABITAT TYPE	DESCRIPTION
Wildflower Strip or Field Border	A linear strip of annual or perennial herbaceous forbs, grasses, and sedges along field borders that support pollinators and other invertebrates.
Food Forest	A multi-story perennial and annual planting system that can include fruit trees and other edible plants. It is often designed as an intentional combination of many plant functional types: e.g., trees, shrubs, forbs, grasses, and sedges.
Hedgerow	A dense, linear planting of trees and shrubs, typically along a field border. Hedgerows can provide early spring pollen and nectar, nesting, overwintering, and drift protection for pollinators, as well as other benefits including privacy, wind protection, soil stabilization, carbon sequestration.
Mini Meadow	Often found in towns and cities, “mini meadow” is a term for a small patch of native forbs, grasses, and sedges, typically planted to replace lawn, weedy vegetation, or other unused space with beautiful and purposeful habitat.
Rain Garden	A rain garden is a garden planted with deep-rooted native plants in an area meant to capture runoff so that it can infiltrate into the soil and reduce storm surges in local watersheds. Plants should be selected to tolerate both wet and dry periods.
Raised Bed or Container	Raised beds and containers can be used for education, accessible gardens, or areas where it may not be safe or possible to plant directly in the ground. These plants, which often have shallow root systems due to the depth and size of containers, may be more susceptible to weather and temperature changes.
Soft Landing	Soft landings are diverse, shade-adapted native plants, ferns, grasses, or leaf litter beneath woody shrubs, tree plantings. Especially in otherwise manicured lawns and parks, soft-landings allow many insects who begin their life cycles on stems or in canopies to survive winter in the litter below.

Left to right—Before, during, and after sod removal for pollinator habitat establishment at Mary Thompson Farm. (Photos: Xerces Society / Stefanie Steele [left]; Mary Thompson Farm / Pat McLamore [center, right].)



Native vs. Non-Native Plants

Native plants are best suited to support native invertebrates due to their long-standing relationships and local ecological adaptations. Some non-native plants support pollinators and beneficial insects. However, invasive, non-native plant species can cause economic, public health, and ecological damage.

To find suppliers of native plants near you, visit the [Xerces Society Native Plant, Seed, and Services Directory](#).

Seeds vs. Plants

There are advantages for each approach. Selecting the right plant materials depends on the project goals and various site-specific factors. Using plants instead of seeds allows for quick establishment, acceptance by the neighbors, and flexibility in design. See Table 1 in Xerces Society Factsheet [Creating Perennial Habitat for Pollinators and Beneficial Insects Using Plugs](#).

Visit the [Xerces Society Pollinator Conservation Resource Center](#) for more information.

Nesting Habitat for Bees

Almost all native bees are solitary and reluctant to sting unless they are trapped or threatened. Approximately 70% of species nest in the ground. Limit ground disturbance and provide access to bare soil. Roughly 30% of species nest in tunnels, such as in last year's hollow dead standing plant stems. Shrubs, bunch grasses, logs, stumps, and rock piles can all create protected nest sites.

Visit [Xerces Nesting Resources](#) webpage and [Nesting & Overwintering Habitat](#) to learn more.

Additional Resources:

- ✎ *Creating Perennial Habitat for Pollinators and Beneficial Insects Using Plugs*: xerces.org/publications/fact-sheets/creating-perennial-pollinator-and-beneficial-insect-habitat-using-plugs
- ✎ *Habitat Assessment Guide for Pollinators in Yards, Gardens, and Parks*: xerces.org/publications/habitat-assessment-guides/habitat-assessment-guide-for-pollinators-in-yards-gardens
- ✎ *Organic Site Preparation for Wildflower Establishment*: xerces.org/publications/guidelines/organic-site-preparation-for-wildflower-establishment



Habitat in urban areas: a field border (above) and food forest (below). (Photos: Xerces Society / Sarah Nizzi [above]; Xerces Society / Stefanie Steele [below]).





Habitat in urban areas: a mini meadow (left) and soft landing (right). (Photos: Xerces Society / Stefanie Steele [left]; University of Illinois Extension / Layne Knoche [right]).

- 👉 *Guidance to Protect Habitat from Pesticide Contamination:* xerces.org/publications/fact-sheets/guidance-to-protect-habitat-from-pesticide-contamination
- 👉 *Regional Plant Lists:* xerces.org/publications/plant-lists
- 👉 *Buying Bee-Safe Plants:* xerces.org/publications/fact-sheets/buying-bee-safe-plants
- 👉 *Xerces Community Science:* xerces.org/community-science

Additional Assistance:

- 👉 Want to learn more? Find detailed pollinator and beneficial insect habitat resources for your region at [Xerces Society: Pollinator Conservation Resource Center](https://xerces.org/pollinator-conservation-resource-center).
- 👉 Do you manage a community garden? Join the [USDA People's Garden](https://www.usda.gov/people-s-garden) network! Connect with gardens from across the country and learn about USDA and partner resources.
- 👉 Interested in financial assistance? Schedule an appointment to talk to your [USDA Service Center](https://www.usda.gov/service-center)—it's free! Ask for assistance with relevant conservation practices including wildlife habitat planting, hedgerows, tree and shrub establishment, or supportive practices like mulching and irrigation infrastructure.

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