

Moving Beyond Flowers: Keep the Leaves and Help Our Beneficial Insects Survive

Fall is the time for many of us to tidy up the garden, cutback flower seed heads, and clean those messy piles of branches and leaves out of the yard. It may be habit, a matter of social conditioning, or a holdover of outdated gardening practices. However, these traditional landscaping habits are highly destructive to our native bees, butterflies, and other beneficial creatures trying to survive the winter on our properties. While some of our insects, like the Monarch butterfly, migrate to warmer climates, most of our beneficial insects spend their entire life cycles in and around our yards.

A 2019 assessment conducted by the United Nations identified that up to 40% of all beneficial insects are in alarming decline. Habitat loss is one of the largest factors driving these insect declines worldwide. While planting native flowering plants provides important food for our pollinators, these insects also require suitable shelter for nesting and overwintering to complete their lifecycles.



Photo courtesy of Penn State University

Cavity-nesting bees, wasps and moths insert their eggs into the hollow and pithy stems of wildflowers and grasses for overwintering. Most bees and wasps create nests beneath the soil or in hollow dead plant stems or cavities in wood. Queen bumble bees burrow only one to two inches deep into bare soil to hibernate, relying on a layer of leaf litter for insulation and protection.

Toads and other small garden creatures use protected spots under leaf litter, in rock walls, brush piles, and under logs and branches to survive the winter. In our cool climate, most of our moths and butterflies use leaf litter for winter protection of eggs, caterpillars, chrysalises, or adults. Luna moths encase their cocoons in leaves and the chrysalises of swallowtail butterflies resemble dried leaves, blending in with the real leaves. The red-banded hairstreak butterflies lay their eggs on fallen oak leaves, which become the first food for the caterpillars when they emerge.

So, you can see, our lawn care habits greatly influence the survival of our beneficial creatures.

What Can You Do?

- Leave dead flower stalks intact over winter. Birds will feed on the seed heads. Cut back stalks in the spring, leaving stem stubble at varying heights of 6 to 24 inches to provide nesting cavities. Female bees will lay their eggs with pollen balls within the stems. Old stems will be camouflaged by new growth and will naturally decay.

- Leave small bare spots of soil without mulch around your yard so bees can access the soil. Opt for raking or vacuuming leaves over shredding them with the mower.
- Spread raked leaves over flower beds where they will insulate plant roots and help build the soil.
- Pile leaves around trees, shrubs, and on gardens and flower beds as mulch. Leaf litter has the same weed suppression and moisture retention properties as shredded wood mulch – and its free!
- Leave a thin layer of leaves on your lawn. While a couple of inches of leaves can kill turf, research has shown that a thin layer of leaves benefits a lawn by decomposing to add organic nutrients. Wait until the air temperature reaches 50° F to mow the leaves to allow the successful emergence of over-wintering bees and butterflies.

Article compiled by Pam Reich

Sources:

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<https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>



The red-banded hairstreak is one of many butterflies that depend upon leaf litter as part of their life cycle. (Photo: John Rannery / Flickr)