

Wildlife/Pollinator Garden Checklist **Compiled by GreenGrace Chattanooga**

Purpose: this is a simple, bare-bones list checklist with many goals for increasing biodiversity in urban and suburban landscapes. Attempt them over time, adjusting as your ideas, resources, and knowledge change.

There are many other native plants sites for our region, including the USDA Native Plant database (by county), National Wildlife Federation (by home zip code), and Audubon (also by zip code). The most local is at the Tennessee Valley Chapter of Wild Ones Native Plant Society at <https://tnvalleywildones.org/>.

Any wildlife/bird/pollinator garden is (1) a combination of roughly 70% + native plants, combined with (2) sustainable garden practices. These plants and practices generally provide overlapping benefit for all urban wildlife. In other words, if you plant for bees, you are also planting for birds; if you plant for birds, you are also planting for many pollinator species.

- ✓ **Native plants:** regionally native plants which evolved with our insects and wildlife. These are best for not only matching our regional weather conditions, surviving early thaws, late freezes, droughts and floods, but also provide forage for the insects that co-evolved alongside them. This relationship is the basis of the food chain in North America.
 - Plants from further regions or even non- native plants can add nectar and fruit benefits if used judiciously.
 - Local genotypes are desirable, if they can be found.
 - Named cultivars: some are fine, some are not. Beware those that alter flower structure (i.e., from simple to double/compound blossoms), scent, or which change foliage colors or sizes.

- ✓ **Use pesticides only in emergencies.** Reserve herbicides for foreign invasive plants such as Bermuda grass, eponymous (wintergreen) vines, vinca, etc. See list of Tennessee invasive plants and control measures at the Tennessee Invasive Plants Council site, <https://www.tnipc.org/>.

- ✓ **Three seasons' support.** Plant for three seasons of consecutive and overlapping bloom, for variously emerging insects and both year-round and migrating birds. Add this over time.

- ✓ **Mulch.** Adding natural mulch will enrich the soil over time as its material breaks down. A 2-3 inch layer of mulch top dressing will slow, but not eliminate weed

emergence, and will hold moisture. Keep in mind, however, that not all native plants care for rich soils.

- ✓ **Bare Soil.** Many ground nesting bees need some bare soil to lay their eggs.
- ✓ **Green mulch.** Living, low- growing plants planted between taller and often more showy plants provide 'green mulch': they provide the same function as manually added mulch, keeping other plants' roots cool and helping suppress emerging weeds. And whereas weeds will emerge from this mulch as well as any other, living mulch will provide its own humic materials and won't have to be constantly replenished.
- ✓ **Plant densely.** This is how Nature plants in North America. This creates competition, which helps eliminate weeds and also creates its own form of green mulch.
 - Group plants that like the same conditions (light, moisture, soil composition), as they would be in Nature. This can take some while to learn.
 - **Plant densely both above and below ground.** Root structures occupy different soil levels, and healthy gardens use all the arable space both above and below ground to retain soil and moisture. This will also nourish a healthy microbiotic soil population.
- ✓ **Shelter & Cover; a place to raise young:** To get the most "bang for your buck", implement a wide array of provisions supporting many species, from small bees up to larger urban wildlife such as box turtles and possums. Remember, pollinators and most insects and amphibians have very small ranges, so changing a feature in your yard can destroy an entire population that's too hyper local to find another. A road or driveway may prove an impassible desert to a small toad or caterpillar. Some simple garden additions to consider:
 - Small rock piles or cairns, artfully added. Add paint or art at your discretion. Be playful and have fun!
 - Small or large brush piles. These support many, many species. They can be neatly designed or simply piled in the back or side of your property, or artfully sculpted put front.
 - Fallen logs. Leave or add them, arranged as desired.
 - Snags. If safely possible, leave dead trees or stumps-- or parts of them—standing. They provide extremely rich 'wildlife condos' for many species.
 - Standing stalks. Leave grasses and herbaceous perennials standing during winter since many native bees use them to overwinter their next generation. They also provide winter cover for birds and small mammals. If needed, compromise with judiciously clearing more groomed areas, and

leaving stalks standing elsewhere. Making them uniform can be more visually appealing if needed, 15” is the recommended height.

- Evergreens/dense shrubs. Intersperse these to provide shelter from storms and cold.
- Appropriate nesting boxes for our nine, native cavity nesting species. Monitor the nest boxes at least weekly during the nesting season (March-August), and clean out used nests.
- Use “host plants” for caterpillars, many of our caterpillars need a specific plant or plant family in order to survive. Example: Monarchs and Milkweed. Caterpillars are necessary food sources and who doesn’t love a butterfly? Butterflies of Tennessee by Rita Venable is helpful in determining the plants to use.

✓ **Landscape design.**

- Reduce Lawn. Figure out what you need and use (play areas, utility areas, paths, buffers, demarcation, etc.), and convert the rest to more naturalized space. Such space is neither abandoned nor unmaintained; rather, it means you convert these areas into those which primary function is habitat. They may also provide other functions such as privacy, light/noise abatement, erosion and stormwater control, screening, aesthetics, etc. Such uses no longer require sterile turf grass and its need for constant mowing.
- Add vertical layers. Most yards are missing an intermediate, small- tree- large- shrub layer. This layer is extremely beneficial to birds and insects, and very pleasing to the eye.
- Style matters. Soften rigid angles for easier maintenance; the more straight- edged the beds and rigid the angles (versus curving beds), the higher the maintenance. This is up to each gardener.
- Tip: A hard barrier edging between beds and grass often eases maintenance. It can be logs, stone, purchased edging, almost anything.
- See other notes above on incorporating mulch, dense planting, cover, and multi-layered designs. These practices should be connected by good design, trial and error, blunders, and adjustments. That is all called ‘gardening.’

✓ **Forage.** See also **Native Plants** and **3 Season Support**, above.

- Consider native fruits like native strawberries, blueberries, raspberries, service berries, etc.; many native shrubs bear berries and fruits in fall.
- Native grasses provide seeds throughout the summer and fall.

- Many native trees provide nuts, fruit, and seeds. They are specific host plants which leaves feed thousands of species of larval Lepidoptera.
 - Plentiful insects and particularly caterpillars are crucial to birds raising young. In turn, insects rely on the native plants they evolved with for their forage.
 - Winter support. Although most insects and many other animals overwinter in some form of stasis, birds and others are active year round. Consider their needs when designing your garden.
- ✓ **Water.** Several sources are best, whether large or small. The source can be small or very elaborate (and expensive). However, small water sources require more frequent cleaning and replenishing.
- Keep it clean, particularly baths/bowls with standing water.
 - Can the user get in, and, as important, out?
 - Use sand/mud or small pebbles for insects, and basins with very shallow sides so that they can sip from the edge.
 - Birds need to bathe as well as drink.
 - Even frogs can drown—make sure they can get out.
- ✓ **Retain inputs on site.** Use your own organic materials. Make leaf litter islands under your trees (where grass will not grow) and as mulch in your beds. See below for more information on this exceptions resource. Grass clippings, branches, rocks, logs can all be reused, rather than shipped to a landfill.
- ✓ **Leaf litter.** This extraordinarily nutrient rich resource is free each fall from your trees: it is a compost and mulch renewal provided by Nature.
- Many, many insects overwinter in their larval stages in leaf litter—most lightning bugs as well as moths and many butterfly species, and a myriad others
 - Other users include hibernating salamanders, box turtles, toads, bumblebee queens.
 - Reuse leaves to the extent possible, raking it off your grass ‘lawn’ and under your trees and into beds. Retain piles for mid-summer mulching projects or inputs to your compost (note: oak leaves are the slowest to decompose).
 - Mulching leaves with a mower will allow them to break down faster, but will also kill any insects as ‘by catch’; use chopping judiciously.

Good luck! Go make LIFE! -- The GreenGrace Chattanooga Team