Bee Friendly to Native Bees

Pollinators are vital to agriculture. Pollination is the transfer of pollen from the male parts of a flower to the female parts of that flower or another flower of the same species. In over 250,000 flowering species the process, which helps to insure genetic diversity, sexual reproduction and seed production, depends on agents to accomplish the transfer of pollen. Pollination increases the amount and quality of fruits and vegetables. Wind, water, insects, mammals, and birds can all work as agents carrying pollen, which is also very high in protein. Some beetles and bees eat pollen, feed it to their young, and help to accomplish the exchange of genetic information in many important food crops. In addition to food crops, pollinators are also important to ornamental plant species and plants from which we make medicines, fibers, oils and fats.

Native bees are not social insects like the European honeybee; they forage for food as solitary insects. Instead of living in hives, they make nests in small holes in trees, shrubs and in the ground. Some will store pollen with eggs laid in these holes and seal them with mud so that their young will have a ready source of protein. Native bees come in all shapes and sizes from the hefty yellow-faced bumble bee (Bombus vosnesenskii) to the tiny solitary bee (Perdita minima). Their names may suggest their appearance or occupation. Some of my favorite names are wandering cuckoo bee, rusty-patched bumble bee, southeastern blueberry bee, blue orchard bee, and impatient bumble bee. There are 3,000-4,000 species of twig-nesting and ground-nesting solitary bees in North America. They are very efficient pollinators and are usually docile with a mild sting or none at all.
To attract native bees, gardeners need to plant a variety of nectar and pollen rich flowers with lots of shapes, colors and sizes. Annual and perennial salvias, black-eyed Susan, and verbenas are on all gardeners’ lists. Including native species of trees and shrubs is important, because many adult insects are dependent on specific host plants to feed themselves or their young. Choose a wide variety of plants that will bloom from early spring until late fall. Everything alive needs water, and a source of fresh water is also a necessary thing to provide pollinators. Shallow dishes or small birdbaths are ideal and mud puddles provide building and packing materials for little “bundles of joy”. Nesting material and small piles of leaves and branches will provide cover and overwintering sites for pollinators, so leave the leaves and don’t try to be too tidy; your mess is somebodies’ home. Lastly, but so importantly, is avoiding or reducing the indiscriminate use of pesticides. Insecticides can kill beneficial insects, and herbicides may eliminate food sources and nesting places for native pollinators. I wouldn’t want to upset an impatient bumble bee would you?

**Plant Lists**

- **Native trees & shrubs:** buckeye, chokecherry, pawpaw, beautyberry, yaupon holly, dwarf palmetto, tulip poplar, magnolia
- **Perennials:** milkweed, blazing star, mountain mint, goldenrod, Stoke’s aster, blue mist flower
- **Annuals:** dill, marigold, zinnia, aster, basil, black-eyed Susan, cosmos, sunflower, salvias

Salvia is an excellent annual to plant for bees.

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**References:**

1. NRCS www.pollinator.org
2. “Beyond Butterflies: Gardening for Native Pollinators” CAES Publications UGA
3. Xerces Society for Invertebrate Conservation www.xerces.org

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