

Audubon at Home in Northern Virginia

4022 Hummer Road, Annandale, VA 22003
 Phone: (703) 256-6895 • Fax: (703) 256-2060
www.audubonva.org



Bumblebee

Kevin Munroe

Native Bees

Estimates suggest that 1/3 of our food comes from crops pollinated by bees. While the European honey bee is a household name, nearly 4,000 species of bees native to the U.S. go about their business largely unnoticed, playing a vital part in pollinating not only crops, but the plants and trees that sustain our environment. Their importance is increasingly recognized due to difficulties managing honey bee hives. Native bees range in size from less than 1/8" to over 1" long. They vary greatly in color from brown or black to metallic green or blue and may have stripes of red, white or yellow. Many look like small flies. Some of the common names reflect their nesting habits, e.g. mason bees, leafcutter bees, digger bees, carpenter bees. Most native bees are solitary rather than social and do not nest in colonies. With no colony to defend, solitary bees, as a rule, do not sting. Bumble bees are the only truly social native bees in the U.S.

What Native Bees Need

Food: Native plants are the best food source for our bees as the plants and their pollinators have co-evolved. Members of the sunflower or daisy family are intensely attractive. Members of the mint family are also attractive, and some leafcutters are attracted to members of the legume family. Bees have good color vision and are particularly attracted to blues, purples, whites and yellows.

Breeding: Like butterflies, bees go through complete metamorphosis: egg, larva, pupa, adult. Only the adult stage is recognized as a bee, and that generally lasts a mere 3-4 weeks. Solitary bees may nest together if a good site is found, but construction and food gathering is individual. Most species dig a tunnel in bare or partially vegetated soil. Some use abandoned beetle burrows. Others nest in tree and plant cavities, including hollow stems. A few species construct nests out of mud, plant resins or saps, along with tiny particles from rocks or trees. Mason bees and leafcutter bees use soil or leaf material to separate individual larval cells. Some nests have only a single brood cell, but most have 10-50 or more.

Shelter: Native bees are losing undisturbed, natural habitat. Plus, invasive exotic plants have spread from people's gardens into protected areas and are out-competing native plants.

How You Can Help

- Include plants with a range of bloom times, from early spring to fall, in your choice of plantings. Viburnum, chokecherry, willow, redbud, and elderberry will provide food sources for bees emerging in early spring.
- Plant black-eyed Susan, purple coneflower, mountain mint, catmint, milkweed, bee balm, goldenrod and aster to provide food through summer and fall. Let some clover bloom, and consider lavender and spices. Flowers should be planted in clusters where possible to maximize attraction.
- Provide waxy-leaved plants such as green ash, lilac, and Virginia creeper for leafcutter bees. A patch of wet, bare soil during the early spring nesting period, or even a bucket of mud can help mason bees construct their mud casings. Drill holes in wooden blocks or bundle together cut woody plant stems to provide sites that cavity-nesting bees can inhabit.



Mason Bees

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- Support preservation of natural areas in your area.
- Remove invasive exotics such as English ivy, porcelain berry and oriental bittersweet. Help with invasive plant removal projects in your community as well.



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Other: Like other animals, bees need access to clean water.

- Install a small pond or provide a birdbath or trough as a pesticide-free water source.
- Minimize pesticide use and switch to bee-safe pesticides.

Resources:

Plants—available at Nature By Design, Hyla Brook Farm, Merrifield Garden Center, DeBaggio Herbs and other local nurseries

Trees—available from Musser Forests, Inc, Nature By Design

Model Native Bee Habitats:

Long Branch Nature Center—www.arlingtonva.us/Departments/ParksRecreation/scripts/nature/ParksRecreationScriptsNatureLongbranch.aspx

Meadowlark Gardens Regional Park—www.nvrpa.org/meadowlark.html

Manassas Battlefield Park—www.nps.gov/mana/naturescience/index.htm

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