

Oppose HB 517 – Referred to Committee on General Laws

The European bee is an imported, invasive species that preys on Virginia's native bees.

From about 20 scientists and Kathy Shenkle, the one who requested the bee and flower.

This was "my" bill. I need to **oppose my own bee bill** because they chose a bee that the experts I consulted did not nominate. The designated state bee is my request, my bill, and my research. Our nominees for designated Virginia native bumble bee, and Virginia native ground flower are the: **Brown-belted bumble bee (*Bombus griseocollis*), and the Marsh Blue Violet (*Viola cucullata*).**

Virginia's Mason Bee Study expert (Prof. Roulston) said she would rather have **no** state bee than have the European bee as the designee. Bees such as these are invasive species that prey on our native bees. Yes, bees eat bees. She could have nominated the bee that Virginia paid her to study, the Blue Orchard Mason Bee which also pollinates the nominated ground flower, but she suggested the brown-belted bumble bee because it is found in the whole state. Newspaper editors and reporters also want an American bee.

Our goal was to designate a Virginia native state bee and Virginia native ground flower that are the most commonly-found in Virginia. The Marsh Blue Violet is everywhere in Virginia, and so is the nominated bee. The Marsh Blue Violet (*Viola cucullata*) is found in all but five counties in Virginia; and is a host for birds, bees, butterflies, mammals, the nominated bee, and our state insect – the Eastern Tiger Swallowtail Butterfly.

Here are more reasons and supporters:

- Delegate Hope agreed with me when he agreed to be the chief patron in December 2023.
- The General Assembly funded the Mason Bee Study done by T'ai Roulston, Curator, State Arboretum of Virginia, Research Associate Professor, Department of Environmental Science, at The University of Virginia, and she narrowed down the list of nominees.
- Many Virginia scientists are opposed to the European bee, but they do support the final bee they recommended, Brown-belted bumble bee (*Bombus griseocollis*).
- Newspaper editors and reporters also want an American bee.
- Axios wrote, "We can't help but demand designation for American bees. Like true patriots."

The future state bee designee must have these characteristics:

1. The Brown-belted bumble bee is a Virginia native living all over Virginia.
2. It pollinates the same flower as our state insect, the plentiful Eastern Tiger Swallowtail (*Papilio glaucus*), species of butterfly native to eastern North America.
3. It is a non-invasive species.
4. It does not harm the plants that are native to Virginia.
5. Many Virginia scientists are opposed to the European bee, but they do support the bee they recommended themselves, the Brown-belted bumble bee (*Bombus griseocollis*). Virginia scientists added more parameters to make their decision.

Ground Flower:

6. The Marsh Blue Violet is found in Virginia's Eastern Shore, in the mountains, and everywhere in between.
7. The flower must be one that is **not toxic** to cats, dogs, horses, bees, butterflies, nor humans.
8. This species of violet grows in everyone's yard all over Virginia.
9. The Marsh Blue Violet is pollinated by our state insect and bumble bee nominee.

Dec 14, 2023 – Mary wrote, “That's great. It's just a busy time and the emails coming in are at record amounts. We don't need anything on the dog or cat. I do not believe Delegate Hope has committed to doing a flower but is still working on the bee bill. - Thanks, Mary, Mary P. Dooley, Legislative Assistant, Delegate Patrick A. Hope, Virginia 47th District”

To Mary: “That was my last research for Delegate Hope for his offering the state bee and in-the-ground state flower bill. I promise that this is the last email I am sending you about the Marsh blue violet and the Brown-belted bumble bee. Thank you for your participation. Kathryn A. Shenkle, M.Div., Volunteer General Assembly Researcher on State Designees”

The professor nominates the *Bombus griseocollis* / brown-belted bumble bee  
She did the study on the *Osmia lignaria*, commonly known as the orchard mason bee or blue orchard bee.

*Viola cucullata* Aiton / Marsh Blue Violet

--- found in all but five counties in Virginia

--- host for butterflies and bees, including *Bombus impatiens*, and other bees

The finalists were:

*Bombus auricomus* / black and gold bumble bee

*Bombus griseocollis* / brown-belted bumble bee

*Bombus impatiens* / common eastern bumble bee --- commercially grown and transported from east to west

*Osmia lignaria*, commonly known as the orchard mason bee, or blue orchard bee

-----Forwarded Message-----

Sent: Dec 6, 2023 Subject: nominee for state native flower

Research from Kathy Shenkle on December 6, 2023.

The following nine types of violets are the most prevalent throughout Virginia. The Marsh Blue and Wood violets are found in nearly every county, all but five. They are pollinated by bees and butterflies. It is yet to be determined if they are both pollinated by our state insect, the Eastern tiger swallowtail butterfly.

THIS ONE - Botanical Name: *Viola cucullata* Ait. - Common Name: Marsh Blue Violet

The Marsh Blue Violet lives in nearly every county including Virginia's Eastern Shore, mountains, and everywhere in between. <https://vaplantatlas.org/index.php?do=plant&plant=3699&search=Search>

NOT THIS ONE - Botanical Name: *Viola palmata* L. complex - Common Name: Wood Violet -- The Wood Violet lives in nearly every county, but is missing from five counties and the eastern shore.

Another note: All the bees, one eats aphids; the bees need some more good press, I think I saw one eating a wasp. There are about 700 types of bees, most of them need specific flowers, they die when the flowers are removed. So - construction, home building, development ---- they need to put the flowers in, and maybe limit the building time to when the flowers would not be in bloom.

**Here are comments and a list of experts supporting our nominees, the Marsh Blue Violet (*Viola cucullata*), and the Brown-belted bumble bee (*Bombus griseocollis*).**

“Mondays are sacred bee identification day.” - Same Droege, USGS

[It sounds like you already have widespread support] for this bee, the Brown-belted bumble bee (*Bombus griseocollis*). It would not be my first choice, but they are fairly widespread in the state.” - Ellison Orcutt, Lead Field Zoologist, Virginia Department of Conservation and Recreation, Division of Natural Heritage, Richmond, VA 23219

pco/pcmo (DCR) Virginia Department of Conservation and Recreation

Susan Friedman, Director of Marketing and Communications, American Horticultural Society

Virginia Native Plant Society has chapters across the state. “Violets all have their own specialist bees. Specialist Bees of the Mid-Atlantic and Northeastern United States.” Of the thirteen states included in the survey, the ones most inhabited by specialist bees are New Jersey, Maryland, and Virginia. This certainly gives us a special mandate to support these bees, and the plants they need, which, of course, are also the plant’s most efficient pollinators.”

Virginia Wildflowers Dot Org -- Blue Flowers -- Violet Flowers -- Great-spurred Violet -- “Violets feed butterflies, bees, rabbits, and other wildlife. They are also an asset to gardeners, forming a lovely groundcover under shrubs and perennials.” - [virginiawildflowers.org/2015/04/10/great-spurred-violet](http://virginiawildflowers.org/2015/04/10/great-spurred-violet)

Virginia Department of Wildlife Resources: An official website of the Commonwealth of Virginia - Here's how you know - The Virginia Cardinal Logo - Commonwealth of Virginia websites will all include the Virginia "Cardinal" logo in the top left. [dwr.virginia.gov/blog/celebrate-pollinators](http://dwr.virginia.gov/blog/celebrate-pollinators)

“Tomato production is greatly enhanced when buzz pollination **occurs by native bees** (the non-native honeybee does not visit tomato flowers). Almost 70 percent of native bee species burrow underground to build their nests.” - DWR

U.S. Fish and Wildlife Service, “Honey bees are the celebrities in the bee world. Originally imported from Europe around 1622, honey bees are raised and managed.” <https://www.fws.gov/story/beyond-monarchs-pollinator-primer>

Suzan Bulbulkaya

Brian Fuller

Bernadette, resident of southwest Va.

The United States Fish and Wildlife Service, U.S. Department of the Interior

Wildflower, U.S. Department of Agriculture’s (USDA)

U.S. Geological Survey, U.S. Department of Interior, USGS: Science for our changing world

PCMO, DCR Virginia Department of Conservation and Recreation

Shenandoah National Park

Blue Ridge Parkway

George Washington Memorial Parkway

The one who nominated the final bees did the Mason Bee study paid for by Virginia. She would support the Mason bee, but focused on the bumble bee.

Many Virginia scientists are opposed to the European bee, but they do support the final bee they recommended, Brown-belted bumble bee (*Bombus griseocollis*).

That includes the scientist and professor who led the Mason Bee study that was paid for by Virginia.

Others who agreed with the Brown-belted bumble bee include: DCR NWF

QUOTES ABOUT BEES AND VIOLETS Viola: Violet

Virginia is one of the three states most inhabited by specialist bees. Bees like violets’ dark purple color, which keeps them warm while drinking nectar and collecting pollen on cool days.

Visitors to violets include several kinds of bees like the mason bees, plus smaller butterflies, and pollinating flies. Violets are considered a butterfly-friendly plant because they are a major larva food source for the Fritillary butterflies. Some small mammals and birds eat the seeds of violets too.

Virginia to gather field data about the status of native blue orchard bees (*Osmia lignaria*) - Mason bees are gentle enough to be handled and only sting if trapped or squeezed. They are more efficient pollinators than honeybees. A single mason bee's erratic flight can touch 20,000 flowers in a day – enough pollination for 12 lbs. of cherries – a task that would take 60 honeybees meticulously moving from flower to adjacent flower! This also has the benefit of increasing cross pollination. Mason bees gather dry pollen on hairs on their abdomen where much of it falls off to pollinate the next flower. Honeybees hold it securely on their sticky legs – better for getting it to the hive but not as efficient for pollination. Best of all, while honeybees might forage miles from the hive – often bypassing blossoms in their path – mason bees stay within a few hundred feet of where they were hatched, keeping them in your garden!

"Unlike many other native bees, bumble bees [Bumble bees (*Bombus* spp.)] are generalists and are attracted to any source of nectar they can find."

The in-the-ground flower finalists were:

Marsh Blue Violet (*Viola cucullate*)

Wild Bergamot (*Monarda fistulosa*)

Wood Violet (*Viola palmata* L. complex)

Do not select the common eastern bumble bee.

Subject: releasing a non-native species.

Hi Kathy,

I think the fact that it is already being used as an industrially produced bee with the potential to become an invasive species in other locations should definitely count against it as a potential bee to highlight in the state. The common eastern bumble bee is so successful at pollinating fruit that it's been introduced in the western U.S. and overseas to help in crop harvests. The success of these programs is still being determined, as well as the harm that can be caused by releasing a non-native species.

T'ai

T'ai Roulston, Curator, State Arboretum of Virginia, Research Assoc. Prof., Dept of Env. Sci, University of Virginia