



Illustration by Kelly Parks

My Favorite Native Pollinator

The American Bumble Bee: A Giant Worth Fighting For

By Kelly Parks, Certified Pollinator Steward | Host, The Secret Pollinators Podcast

I have always admired bumble bees. There is something about them — their size, their unhurried confidence, the way they work a flower like they have all the time in the world — that I found captivating long before I could tell one species from another. But admiration is one thing. Falling in love is something else entirely. That happened about 20 years ago, and it started with a bear.

A bear came through my ranch one night and dug up a bee nest. I walked out the next morning to find the damage and assumed, the way most people would, that it was a honey bee colony — because what else would a bear be after? I started poking around, doing a little research, and that's when I discovered something that genuinely stopped me in my tracks: it wasn't honey bees at all. It was a bumble bee nest. Underground. On my own property. And I had walked past it who knows how many times without ever knowing it was there.

That one discovery sent me straight down a rabbit hole I have never climbed back out of. I started watching bumble bees in my fields and gardens with completely different eyes — following them as they finished foraging and made their way back home. And sure enough, there they went: down into the ground. Not into a hive hanging from a tree, not into a wooden box someone built for them. Into the earth. The more I learned, the deeper I fell. Twenty years later, I am still falling.

My favorite native bee? The American bumble bee, *Bombus pensylvanicus*. She is big, bold, and breathtaking — queens can measure up to an inch (2.5 cm) long — and she used to be everywhere. From Quebec down to Florida, west through the Great Plains

and into the Rocky Mountain region, and south deep into Mexico. She was one of the most common bumble bees on the continent. I say 'used to be' because that's the part of her story that keeps me up at night.

Since the year 2000, according to an [article](#) in Smithsonian, the American bumble bee population has collapsed by roughly 90%. She has vanished entirely from eight states - Idaho, Maine, New Hampshire, North Dakota, Oregon, Rhode Island, Vermont, and Wyoming. In New York, she's declined by 99%. In the Midwest and Southeast, more than half her populations are gone. Here in Montana, where I have watched and studied these bees for two decades, sightings have become genuinely rare in the northern parts of her range. I notice the absence in a way I could not have twenty years ago, before I knew what I was looking for.

The culprits are likely the same ones threatening so many of our native bees: pesticides, habitat loss, climate change, and — heartbreakingly — a [pathogen](#). Wild bumble bees are contracting *Nosema bombi* through close proximity to imported bees, which are introduced into greenhouse environments. This creates a risk of pathogen spillover from domestic populations to native ones.

In 2021, the U.S. Fish and Wildlife Service acknowledged that the American bumble bee may warrant protection under the Endangered Species Act - a significant step, but not yet a listing. We are still waiting. That waiting matters, because without ESA protection, this bee has no federal safety net.

I talk about all of this on my podcast, The Secret Pollinators, because I genuinely believe that knowledge is the first step toward action. Most people have never heard of *Bombus pensylvanicus*. They know honey bees — I thought I did too, until a bear proved me wrong. But this big, beautiful, yellow-and-black giant — the one named after America itself — is slipping away quietly, and most of the country doesn't even know to grieve her.

What She Loves — and What You Can Plant

Here is where the good news lives: you can help her. The American bumble bee is a generalist forager, which means she is not as picky as some of her cousins. She nests on the surface of the ground or just below it — often in abandoned rodent burrows, as I learned firsthand on my own ranch — near her favorite flowers. She loves open meadows and fields. And she has exquisite taste.

On my own ranch I have watched her work dandelions, clover, sunflowers, *Liatris*, globemallow, and yarrow with equal enthusiasm — she is not particular, and she will find what she needs if you give her the chance. If you want to plant specifically for her, goldenrod (*Solidago*) is one of her most beloved flowers, and asters, vetches, St. John's wort, boneset, trout lilies, and columbine will all bring her in. If you have ever watched a

bumble bee hang completely upside down from a nodding flower while she works it for pollen, you may have been watching a *B. pensylvanicus*. She is not delicate about it. She is enthusiastic, thorough, and joyful in a way that has made me smile for twenty years and shows no sign of stopping.

She is also one of nature's great engineers. When she wants pollen that other bees simply cannot reach, she does something remarkable: she disconnects her wings, grabs the flower with her legs or mouthparts, and vibrates her flight muscles directly against the bloom. This is called sonication, or buzz pollination, and she performs it at up to 400 Hz - 400 vibrations per second, equivalent to 24,000 vibrations per minute. That frequency produces an audible middle-C buzz that you can actually hear in your garden if you know what to listen for. It is not the bee being angry. She is working, with extraordinary precision, to shake loose pollen that is locked inside tubular anthers and less inaccessible to some other pollinators, including honey bees, which cannot sonicate at all. Tomatoes, peppers, blueberries, eggplant — pollination of these crops is greatly increased by this vibration. The irony is not lost on me: the very industry she helps sustain may have helped destroy her.

What You Can Do Right Now

As a Certified Pollinator Steward, I always come back to habitat. Please, let your early yard weeds bloom — they are often her very first food source when she emerges hungry from her winter nest, and that early nutrition can fill a void. Leave patches of bare ground in your garden — she nests there, and if you're lucky, a bear might be the one to show you. Let your goldenrod bloom. Resist the urge to deadhead everything in fall. Reduce or eliminate pesticide use, especially insecticides. And talk about her. Tell your neighbors. Tell your garden club. Post a photo when you see one.

The American bumble bee does not need to disappear. She needs us to notice her before it's too late. For me, it took a bear and a broken nest to turn admiration into a twenty-year love affair with these remarkable creatures. I hope it doesn't take that for you. Once you start paying attention to who is living in your soil, foraging in your flowers, and quietly holding your garden together — everything changes. And that, I promise you, is a rabbit hole absolutely worth falling into.

Kelly Parks is a Certified Pollinator Steward through Pollinator Partnership and the host of The Secret Pollinators podcast, dedicated to educating listeners about native bee species beyond the honeybee. Based in North Central Montana and the Chihuahuan Desert of Southern New Mexico, Kelly has spent more than two decades studying and advocating for native bees — a passion that began on her own ranch, thanks to a very hungry bear. Find her podcast wherever you listen or visit secretpollinators.com.