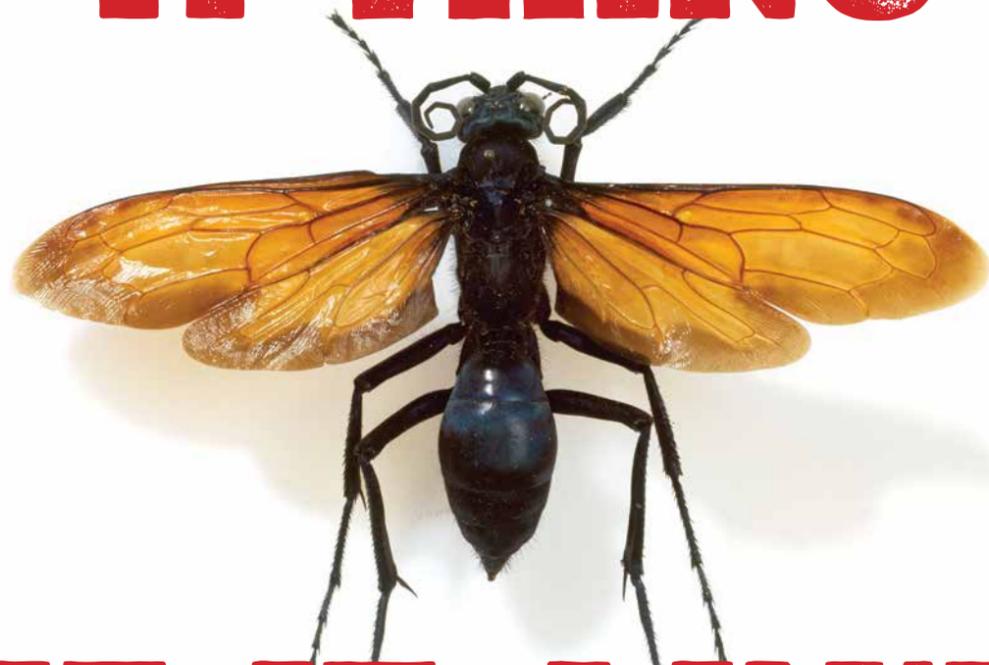


IT DON'T
MEAN
A THING



IF IT AIN'T
GOT THAT
STING

An appreciation of our formidable state insect, the tarantula hawk wasp.

BY HAMPTON SIDES

YOU CAN LEARN a lot about a state, I would posit, by considering the attributes of its official insect. State *insect*? you ask. Is that even a thing?

Indeed it is. Rhode Island's is the American burying beetle, a retiring little guy that prefers to dwell in shady obscurity. The Massachusetts insect of choice is the prim and matronly seven-spotted ladybug. Alaska's is the skimmer dragonfly, an aggressively territorial predator that likes to mate in midair—a suitable pick for a state whose skies are crowded with lonesome bush pilots.

Most New Mexicans I've talked to about this didn't know what our state creepy-crawly was, or even that we had one. Well, we do, and it's a doozy. In Linnaean nomenclature, our official bug is *Pepsis grossa*, a member of the family *Pompilidae*. But to most people, it's known as the tarantula hawk.

Despite its name, the tarantula hawk is neither a spider nor a bird of prey. It's a wasp. But by no means an ordinary wasp: Its spectacular and at times draconian mode of survival, its ferocious strength, and its otherworldly courage put the T-hawk in a category all its own.

The tarantula hawk wasp is famous for, among other things, having one of the most painful stings in the entire insect world—second only to the bullet ant of the Central and South American rainforests. Justin O. Schmidt, a renowned Arizona entomologist who trots around the globe searching for biting and stinging critters, has developed something he calls a Pain Index—a sort of connoisseur's scale that has been compared to Robert Parker's wine ratings. A seeming masochist who has been nailed by all manner of vermin, Schmidt notes that while the sting of the tarantula hawk is not especially harmful to humans (unless an allergy is triggered), it is exceedingly painful—a four-plus on his four-point index. "Blinding, fierce, and shockingly electric" is how Schmidt describes it. "To me, the pain is like an electric wand that hits you, inducing an immediate, excruciating pain that simply shuts down one's ability to do anything, except, perhaps, scream."

The most extraordinary thing about the tarantula hawk, however, concerns its highly selective choice of prey. Simply put, this vicious wasp takes on some of the world's largest spiders—and almost invariably wins.

Imagine you're a tarantula. You're hairy and fanged, the king of the arachnid world. You make humans scurry in dread. You eat pretty much what you want—mice, birds, lizards, even small snakes. Life's good.

Then one day you're crawling around the desert, minding your own business, when along comes this ...

winged angel of death. This *harpy*. She (for it is always a she; we'll get to the males in a minute) has been flitting determinedly across the mesas and arroyos of New Mexico, looking for you. Looking only for you.

Now this thing has you in her sights, and you, in turn, stare back at her. She has a sheeny fuselage of a body that's a gunmetal blue-black, with large wings etched in a brilliant rust-orange pattern. She has curling antennae, and on her segmented legs she sports sharp claws that serve as grappling hooks. On her underside is a barbed stinger a quarter-inch long—the longest in all the wasp world—capable of delivering that aforementioned dose of stout poison.

Because this creature has been coming for you and your kind for millennia, every instinct tells you to fear her. Maybe it's the peculiar stink cloud she emits—the "*Pepsis* odor," entomologists call it—that's now wafting over you like some pheromone of doom. Maybe it's the sleekness of her exoskeleton, sharp and angular and hard, or the businesslike precision with which she zeroes in on you. Whatever it is, she has you momentarily hypnotized. *Transfixed*.

Now she seizes you with those grappling hooks and, after an epic battle, plunges her stinger in you. Within an instant, you can't move. Something powerful was in that venom, some neurotoxin specially concocted to mess with your particular biochemistry. You're still alive, but you're paralyzed—this time literally.

Here is where you start to realize the supernatural strength your enemy possesses. Even though you're eight times heavier than she is, she's dragging you over the land, hauling you down into a burrow she has prepared. Once inside, she crawls on top of you and discharges some sort of ooze into the hairs of your body. Inside that secretion is a single egg.

The wasp proceeds to cover up the burrow, then flies off. You're alone down there in the blackness, just you and the egg, which soon hatches into a larva that punctures a tiny hole in your abdomen. You will now serve as "breakfast, lunch, and dinner for its entire growing life" (that's Schmidt talking). As the little guy ravenously sucks and slurps your fluids, you're powerless to stop it: You're still paralyzed. Somehow it knows to avoid your vital organs until the end, so you'll stay alive, stay *fresh*, longer.

THE NATURAL HISTORY MUSEUM / ALAMY STOCK PHOTO

After a few weeks, the larva pupates, and then finally an adult crawls out of your abdomen and emerges from its brooding nest to perpetuate the life cycle—and further terrorize your tarantula brethren.

But mercifully, by this point, you are very, very dead.

Admittedly (and especially when considering the tarantula's point of view), *Pepsis grossa* is a decidedly grim and gothic little beastie. You might ask: What diabolical forces conspired to bring up this monster from the depths of relative obscurity to be enshrined as our official state insect?

You can blame it all on little kids and their peculiar taste for the grotesque. Back in 1988, Ruth Bradford, then an elementary school teacher in Edgewood, decided to cook up a little class experiment in hands-on learning. It would be both a civics lesson and a science project. Bradford had discovered that while New Mexico had a state flower (yucca), a state tree (piñon), a state gem (turquoise), and a state fish (cutthroat trout), we had no official insect. Lamenting this conspicuous oversight, Bradford had her sixth graders reach out to entomologists around the state to solicit recommendations. To the kids' pleasant surprise, the scientists promptly responded. Included in the list of promising candidates were the Jerusalem cricket, the black cactus longhorn beetle, the yucca moth, and the assassin bug. But something about the tarantula hawk grabbed the students from the start. Bradford, of course, knew precisely what it was. Kids, she said, "love blood and guts."

But Bradford didn't stop there. She and her students drew up ballots and sent them out to more than 400 elementary schools around the state. Nearly 10,000 fourth, fifth, and sixth graders cast their votes. And the winner? The T-hawk by a landslide, receiving nearly 6,000 votes. (The yucca moth came in a distant second.)

Bradford, whose determination in pursuing the process to its conclusion was itself starting to seem a bit tarantula-hawkish, then consulted State Representative Gary King, who soon drew up what became known as House Bill No. 468. The bill made its way through committee, then was considered by the full house. Representative Rubén Smith strenuously protested that the cockroach was a much better candidate, and to make his point he broke out in a verse of "La Cucaracha." Nevertheless, the bill passed the house with only tepid resistance and was then unanimously approved by the senate. Ruth Bradford and her charges had won the day. In April of 1989, then-Governor Garrey Carruthers signed House Bill No. 468, pronouncing the tarantula hawk the official insect of New Mexico.

Across the whole state, tarantulas shivered in their hiding places.

School-kid fascination aside, how does one defend, let alone celebrate, the tarantula hawk? How does one argue that, yes, indeed, it is the perfect bug for us, a fair and fitting insectile expression of who we are and what we stand for?

First, you need to know that for most of their lives, tarantula hawks are actually rather docile creatures and will sting only when provoked. They are nectar-ivorous—that is, most of the time they go around eating flower nectar. They're drawn, especially, to the fragrant blossoms of the milkweed plant, and have been known to consume so much fermented fruit that they can no longer fly straight. Watching them bounce around half-drunk among the nodding weeds, you would never know they were capable of such frenzies of monstrous savagery. For this reason, they've been called the Clark Kents of the insect world: mild-mannered, yes ... until they enter the metaphorical phone booth and become women of steel.

Near as I can tell, the males of the species are useless. They're smaller and weaker, and have laughably puny stingers. Male T-hawks generally eschew violence and wouldn't go anywhere near a tarantula. For most of their days, all they do is get plastered and think about sex. They perch themselves in high places (a technique called "hill-topping") and keep their eyes peeled for lady friends.

It's the females that do all the work, determine the sex of the offspring, hunt for a suitable nest site, and wage mortal combat with great arachnids—all for the noble purpose of providing nourishment for their young. Which points to the first reason why the tarantula hawk works as our state bug ...

Strong women. We've always been a land of proud, strong women, from the earliest Native peoples and Spanish colonists to Georgia O'Keeffe. Maria Martinez. Mabel Dodge Luhan. The infamous 19th-century Santa Fe saloonkeeper Maria Gertrudis Barcelo (aka Doña Tules) also springs to mind—as does the acclaimed Laguna Pueblo novelist and poet Leslie Marmon Silko. Our women have always been tough, original, independent—and unafraid to take on an adversary, no matter how formidable.

Adaptability. The desert often requires of its inhabitants that they devise elaborate and sometimes bizarre strategies for survival. We have to be creative, fending by our wits, cobbling together livelihoods from disparate elements. How the tarantula hawk overcame a harsh and often hazardous environment to evolve such a fantastical m.o.—with highly specific body parts and paralyzing chemicals—just astounds me. But it kind of makes sense. By necessity, we New Mexicans have always been inspired improvisers and adapters.



The sting of the female tarantula hawk wasp: "blinding, fierce, and shockingly electric."

Solitude. Tarantula hawks start out as one egg, in one nest, living by the sustenance provided by one spider. Most of their lives they're solo operators. That's a good description of a certain historic strain that runs deep within New Mexican culture. We've long been a place that attracts artists and writers, hermits and bohemians, monks and curmudgeons. We New Mexicans like our space, and are jealous of our time. Many of us are perfectly content to live alone, far from the crowds. Give us some peace and quiet and watch what we can do.

Pleasure and pain. Going back to Justin Schmidt and his Pain Index, I think it's terrifically apt that the sting of the tarantula hawk smarts so intensely. In New Mexico, land of the cholla, the prickly pear, the goathead, and countless other ouch-causing agents, we have a deep appreciation of the pleasure-pain principle. We smother our food in chiles and find a kind of bliss in fighting the fire in our mouths. For we know that after the pain come the endorphins. The tarantula hawk sting, powerful as it is, lasts only three or four minutes. Some people who've been stung by *Pepsis grossa* have reported a kind of euphoria once the pain wears off. It's a truth we New Mexicans know well: There's often joy on the other side of suffering.

Aposematism. Tarantula hawks are said to be an "aposematic" species. This is a fancy word for "truth in packaging." With its bright coloring, its menacing appearance, its buzzy-jittery mannerisms, and its plume of "*Pepsis* odor," the T-hawk does everything possible to advertise to potential predators that, should they try to eat it, pain will surely ensue. Apart from being admirably honest, it's a strategy that seems to work, for the tarantula hawk has few natural predators. Other creatures give it a look and say "No, thanks." This is another New Mexican trait, I think. We like dash and color and a certain commotion of costume, the brighter and louder the better. We love our turquoise, our chile ristras, our hot-colored hot-air balloons, our gemstone bolo ties, our lowriders in a hundred shades of metal-flake paint. We want people to know we're here—and we're not to be trifled with.

Actually, the tarantula hawk does have one predator, or so it's been reported in the entomological literature. Apparently there is one varmint out there that's dumb enough, or stoic enough, to choke down the occasional T-hawk. And this is fitting, too, for this brave, self-punishing badass of a creature just happens to be the greater roadrunner—New Mexico's state bird. ■

Hampton Sides is featured in "Storytellers," p. 8