Some Truths About the Fascinating Lives of Wasps

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These magnificent and diverse insects should be valued, not vilified.

I'm learning that as people have more time on their hands because of pandemic pandemonium and the rampant destruction of their "normal" lives, they want to know more about the fascinating lives of nonhuman animals (animals) other than those with whom they're somewhat familiar, such as dogs, cats, and other species they see in movies and documentaries. Many people are "familiar" with wasps, however, they really don't know the nitty-gritty of who these magnificent insects really are because most if not all of their encounters with these flying intruders haven't been especially friendly.

I've always been interested in wasps, especially after having been stung by a fair number. I really didn't like being stung and on just about all occasions I uttered more than a mouthful of expletives. However, some entomologist friends of mine told me I really should appreciate these stinging machines because they're only doing what's natural for them and they really do many good things. Furthermore, their diversity is mind-blowing. There are more than 110,000 known species of wasps and only one-third have a painful sting. So, all in all, talking at "the wasp" is as misleading as talking about "the dog."

Source: Pixabay, free download

As an ethologist studying coyotes, dogs, and other social mammals, I try to keep an open mind. However, I still wasn't sure how much I wanted wasps to be my friends.

A few days ago I came across an essay published in *New Scientist* by Richard Jones called "Not so Waspish," with the subtitle "They are one of the least-loved animals, but wasps deserve our affection. It's time for a rebranding." The online version that's not currently openly available is titled "Wasps may benefit us as much as bees. Could we learn to love them?" with the subtitle "We love to hate wasps, but they pollinate flowers, kill off pests and their venom might even help us treat cancer." Mr. Jones' piece opened the door for me to finally come to appreciate wasps for who they are what they do, and not to categorically write them all off as insensitive and robotic stinging machines. Only a mere 33,000 or so species can cause us pain.

The truth about wasps

"The very word 'waspish' summons up ideas of irritability, implying they are quick to anger, spiteful and vindictive...But are we judging this diverse group of insects unfairly? Certainly, our perceptions are ill-informed...Far from being bothersome and vindictive, they make valuable contributions to ecosystems, the economy and even our health. –Richard Jones, "Wasps may benefit us as much as bees. Could we learn to love them?"

Mr. Jones begins, "EVERYBODY loves bees. They are celebrated for their glorious honey, cooperative work ethic and commercially valuable pollination services. In a 2019 survey, 55 percent of respondents chose bees as the species they most wanted to save, above the likes of elephants and tigers. How differently we see wasps. These most unwelcome picnic guests have been reviled for millennia. Ancient Greek essayist Plutarch described wasps as degenerate bees." This sets the scene for what follows in his data-packed piece. Here are a few snippets to whet your appetite for more.

–Some plants are pollinated exclusively by wasps. Without wasps, elegant plants such as 100 or so species of orchid would become extinct.

–Wasps are "the third most important predators of insects after birds and spiders." Research shows "A mature wasp colony is reckoned to take between 3000 and 4000 prey a day at the height of the season. By one estimate, in the UK alone, wasps eat 14,000 tonnes of insects each summer."

–The sting in a wasp's tail is a potent weapon and can actually help us by keeping other animals at bay.

—Wasp venom might have some therapeutic value. Bee venom can help with conditions such as arthritis, and while more research is needed, it's likely that wasp venom might also have some medicinal applications, for example in the treatment of different cancers. It "also shows encouraging antibacterial and antiviral qualities, and inhibits the development of the parasite that causes Chagas' disease. Further wasp venom constituents are being explored as treatments for neurological conditions, allergies and cardiovascular disease."

–Wasps also have significant conservation value, as indicators of environmental stress because "they are affected by climate change, intensive agricultural practices and the same pesticides that are implicated in a widespread decline in insect numbers."

Mr. Jones concludes, "Our ignorance about wasps is still vast but, by looking beyond our prejudices, we can see their potential to tackle some of the biggest problems we face. A wider understanding of their diversity (see "What is a wasp?"), life histories, ecologies and behaviours is long overdue. It is time we stopped demonising wasps and learned to love them." I thoroughly agree with him.

We need to be careful about talking about wasps as if they're all the same or all "bad." They're not. We also need to pay more attention to other animals who we casually and ignorantly write off as being pests, dumb, or unfeeling and insentient and why we "love" some and "hate" others without paying attention to who they really and why we make these choices.[1]

I learned a lot about wasps from Mr. Jones' essay and the references he provides, and I hope others also will come away with more of an appreciation and more respect for who they truly are and their incredible diversity. Even with this increased knowledge, I don't think most people will become their best friends or intentionally invite them to social events–even those that require social distancing. However, I do hope that as people learn more about wasps, the rebranding for which Mr. Jones hopes will follow and result in changes in heart that recognize just how remarkable and important wasps, taken as whole, truly are. The One Health movement stresses the importance of recognizing the interconnections among people, animals, plants, and their shared environment.

Now is as good a time as any to expand our knowledge of the magnificent, mysterious, and amazing animals with whom we share our wondrous planet. I look forward to writing more about a wide array of these fascinating beings, including species with whom many or most people are unfamiliar, and putting misleading myths to sleep once and for all. It wouldn't surprise me at all if further research shows that wasps share the same rich cognitive and emotional lives that have been discovered in bees.[2]

In the meanwhile, try thinking about what it is like to be a wasp, why they do the things they do, and how we can come to coexist with them and other animals with whom we share space and time, like them or not.

References

1) Relevant references with many sources include:

Sentient Rats: Their Cognitive, Emotional, and Moral Lives. (Rats are clever, caring, and playful despite claims they're not really animals.)

Rats Share Food More Generously When They Smell Hunger.

A Tribute to Dr. Victoria Braithwaite and Sentient Fishes.

Sentient Reptiles Experience Mammalian Emotions.

Spider Smarts: Data Show Their Minds Extend Into Their Webs. ("Spiders think with their webs, challenging our ideas of intelligence.")

2020 Hindsight Demands Changes in Animal-Human Interactions.

The Psychology Behind Why We Love and Exploit Animals.

All Turkeys Should Be Respected and Pardoned.

Ants Rescue Sibs From Spider Webs and Surprise Us Once Again. (Harvester ants join chimpanzees and mountain gorillas in the "rescue club.")

One Health Stresses Working Together to Heal a Broken Planet.

Sumner, Seirian and Ryan Brock. In defence of wasps: why squashing them comes with a sting in the tale. *The Conversation*, July 12, 2016.

2) For more information on the cognitive and emotional lives of bees, click here.