

ANIMALS

How Humans Are Messing Up Bee Sex

From pesticides to land development to electromagnetic pollution, humans often harm the ability of honeybees to reproduce.

BY ELIZABETH ANNE BROWN

PUBLISHED SEPTEMBER 11, 2018

Fly fast and die young: That's a male honeybee's lot in life. With less than a one percent chance of successful reproduction, and a 100 percent chance of dying after mating, male honeybees have it tough.

But recent evidence suggests that human activity—including land development, electromagnetic pollution, and use of neonicotinoid pesticides—is making it even harder for honeybees to reproduce, to the peril of the species.

Every spring these males, also known as drones, fly out to congregation areas, mid-air ballrooms where thousands of young bees gather from miles around to show their stuff.

Each seeks to mate with a virgin queen, a week-old female destined from birth to found her own hive. During these females' "nuptial flights" at these events, the queens gather the genetic material they'll use to inseminate eggs for the rest of their lives. Queens can lay 2,000 eggs on a good day.

Each queen will mate with about twelve of her suitors, fewer than one percent of the males in attendance. Eager males hurtle through the sky behind a virgin queen like a comet's trail, jockeying for position.



Disney

THE

L

CONTINUE READING

The best of National Geographic delivered to your inbox.

Sign up for more inspiring photos, stories, and special offers from National Geographic.

Enter your email



By signing up for this email, you are agreeing to receive news, offers, and information from National Geographic Partners, LLC and our partners. Click here to visit our [Privacy Policy](#). Easy unsubscribe links are provided in every email.