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This Bird Is Half Male, Half Female, and Completely Stunning

A green honeycreeper spotted on a farm in Colombia exhibits a rare biological phenomenon known as bilateral gynandromorphism.

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This honeycreeper was first observed in October 2021 on a small farm in Villamaría, in western Colombia, and soon became a regular visitor. It appeared to be a bilateral gynandromorph: female on one side and male on the other. John Murillo



By Emily Anthes

March 7, 2024

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Colombia is a bird watcher’s paradise. Its stunningly diverse ecosystems — which include mountain ranges, mangrove swamps, Caribbean beaches and Amazonian rainforests — are home to [more avian species](#) than any other country on Earth.

So when Hamish Spencer, an evolutionary biologist at the University of Otago in New Zealand, booked a bird-watching vacation in Colombia, he was hoping to spot some interesting and unusual creatures.

He got more than he bargained for. During one outing, in early January 2023, the proprietor of a local farm drew his attention to a green honeycreeper, a small songbird that is common in forests ranging from southern Mexico to Brazil.

But this particular green honeycreeper had highly unusual plumage. The left side of its body was covered in shimmering spring-green feathers, the classic coloring for females. Its right side, however, was iridescent blue, the telltale marker of a male. The bird appeared to be a bilateral gynandromorph: female on one side and male on the other.

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“It was just incredible,” Dr. Spencer said. “We were lucky to see it.”

Gynandromorphism has been documented [in a variety of birds](#), as well as [insects](#), crustaceans and other organisms. But it’s a relatively rare and poorly understood phenomenon. The bird Dr. Spencer saw in Colombia is only the second known case of bilateral gynandromorphism in a green honeycreeper — and the first documented in the wild. (The only previous example was reported more than a century ago and was based on a museum specimen, Dr. Spencer said. That bird displayed the opposite pattern, with female plumage on the right and male plumage on the left.)

How to Become a Birder

Start from the basics. Begin with something foundational: [Learn to identify a few of the birds](#) most commonly seen near where you live. Digital tools like the Merlin Bird ID app can help. If you spot a bird, pay attention to things like the size, color, behavior, location and date. Binoculars and field guides might help, but are not necessary to get started.



It is not entirely clear how the condition comes about, but one leading theory is that it results from an error during the production of egg cells in female birds. Female birds have two different sex chromosomes, designated W and Z, while males have two Z chromosomes. An error during egg cell production could result in two fused or incompletely separated cells, one with a W chromosome and one with a Z chromosome.

If those fused cells are fertilized by two different sperm, each of which carries a Z chromosome, the result might be a bird with the WZ chromosomes of a female in some cells and the ZZ chromosomes of a male in others. “And so you get a bird that’s half and half,” Dr. Spencer said.

John Murillo, an amateur ornithologist who owns a small farm and nature reserve in Colombia, first spotted the gynandromorphic honeycreeper in October 2021. It became a regular visitor to the farm’s bird feeding station, which was stocked with fresh fruit and sugar water. When Dr. Spencer and his bird-watching tour arrived at the farm more than a year later, Mr. Murillo pointed out the unusual bird and shared some photos he had snapped of it.

“They’re the best photos of a wild gynandromorphic bird that I’ve ever seen,” Dr. Spencer said. “I thought, The world needs to see these.”

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The photos were included in [a paper](#) that Dr. Spencer and several other scientists wrote about the unusual honeycreeper, which was published in The Journal of Field Ornithology in December. (Mr. Murillo was one of the authors.)

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The bird’s internal characteristics remain a mystery. In some, but not all, previously studied cases, gynandromorphic birds have had internal sex organs that matched their external plumage, with an ovary on one side and a testis on the other. Past observations suggest that some gynandromorphic birds can successfully court mates and reproduce.

But this particular green honeycreeper was never observed engaging in any courtship or mating behavior. It tended to avoid other green honeycreepers and often hung back from the feeding station until other birds had departed. “The bird was inclined to be a bit of a loner,” Dr. Spencer said.

Still, it seemed to stick around, visiting the feeding station repeatedly over a period of nearly two years. “This bird was around for a long time,” Dr. Spencer said. “It wasn’t at any kind of obvious disadvantage, except possibly in finding a mate.”

Emily Anthes is a science reporter, writing primarily about animal health and science. She also covered the coronavirus pandemic. [More about Emily Anthes](#)

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