The Romance of
ANTS

Learn how a childhood love for insects spurred a career dedicated to researching ants.

I LOVE ANTS!

© Field Museum  Art work by Alexandra Westrich  Story By Matt Matcuk
New Orleans in the 1980s...

Tough going for a little girl interested in nature and animals. Her name was Corrie.

There wasn’t much “wildlife” around, and pets weren’t allowed in her building.

But in the cracks on the sidewalk, Corrie and her little brother David could always find...

...ANTS!

Aren’t ya afraid to poke ‘em like that?

If you’re quick you won’t get stung.

These ones are called fire ants because when they bite you it burns like a red-hot poker.
In elementary school I would check out books from the library, to learn about what the ants were doing. Ants always seemed to have a plan.

Sometimes she would do experiments, like dropping a crumb to see how long it took them to find it, how many ants were needed to carry it away, or which direction they took it in.

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See, there are lots more different kinds than just "red ones" and "black ones."

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You never see just one of them, alone. Why is that?

Ants are insects so they have six legs and three main body parts...

Head... thorax... abdomen.

What's next? Will Corrie continue to study ants? Will she discover a new species? Will she get bitten?

Turn to chapter two—Adolescence!—to find out...
In junior high, Corrie started feeling that some of the things she liked weren't considered cool for girls to do...

No wonder she doesn't wear nice clothes. What if she fell off her skateboard and ripped them?

...such as studying insects.

Which is ironic, because almost every ant we see is female: from workers to soldiers.

(Middle school is also where you start to think more about the birds and the bees...and the ants.)
Corrie’s interest in ants went... underground.

But like ant nests, just because something’s underground doesn’t mean there’s nothing happening there. Corrie’s fascination with nature never really went away.

She became interested in the environmental movement.

You see, when fishermen catch tuna, they use trawling nets that also trap every kind of marine animal in their path.

She became a vegetarian. And later, she won first place in the Louisiana State Fair in the science competition.

Most of all, she loved watching nature specials on PBS.

But where would her interests lead her? Stay tuned for Chapter Three: College...
Chapter Three: College...

After high school Corrie left Louisiana behind and headed off to college.

She thought that she might be a teacher, but then she did something that changed her life forever...

The second I was in there, it was clear. As soon as that class was done I declared my major in biology.

In biology she rediscovered her love of the natural world, and of ants in particular.
After she got her degree, she continued on to a Master's degree, where she did her first field work, collecting and studying the evolution of...

Eventually Corrie went on to get her Ph.D. in evolutionary biology at Harvard University...

...where she studied with one of the most famous biologists of all time: the great E. O. Wilson!

During that time she continued her study of ant behavior and ant evolution while doing research in Peru and Ecuador.

("That's Edward Osborne Wilson to those in the know...")

It was in graduate school that she also met her future husband Jay. They got married while Corrie was working on her Ph.D., just as she was about to begin...

Chapter Four: Her Professional Career.
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Early in 2007 Corrie traveled to Chicago for an interview, and soon...

We would like to offer you the position of Assistant Curator in the Insects Division, Dr. Moreau.

In fact, if you cut a hole through the exhibition's ceiling and the floors up above here, you could almost look into my office.

...began her position as a curator of ants. Here at The Field Museum.

What is a curator responsible for?

Adding to the collections
Sharing the science they are doing
Promoting and caring for the collections
Writing grants to fund research
Mentoring students
Most importantly... original research.

So how does an ants curator divide her time?

1/4 time in field
1/4 time in lab
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Right now, Corrie has three kinds of projects going. The first is to help fill in the ant "family tree."

To do this, she sequences ant DNA in a lab that you can see on the second floor of the museum.

In another project, she extracts bacteria from the stomachs of ants and sequences the DNA of the bacteria found there.

*This is "good" bacteria: it helps the ants get protein out of their all-plant diet.

What we found was that, basically, no matter where they were in the world, ants that ate plants had this same kind of bacteria in their gut, to help them get the nutrients out of their food.

Then she can study how the bacteria and the ants have evolved together over time.

It's not easy to get inside an ant's gut. I can't drink any coffee before I do this.
I'm studying the evolutionary history of ants in rainforests of the Australian Wet Tropics to learn more about climate change.

See, all of Australia used to be covered by rainforests, millions of years ago. But as the environment changed in various places, the ants had to change, too.

Now, if you correlate the diversity of ant species in a particular region with the climatological data for that place (as determined by, for example, the diversity of fossil plant specimens and the density of stomata for CO2 absorption on angiosperm leaves).

Too much info. If they really want to dive in deep on this stuff can't we just give them the Expeditions web address? Fieldmuseum.org/expeditions.
What’s next for Dr. Corrie Moreau?  
Sequencing the DNA of a Cephalotes varians specimen’s lunch?  
Re-writing the evolutionary history of the Polyrhachis genus?

Collecting specimens of...