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# Scientist: Ants abound at Tiverton's Fort Barton

By [Tom Killin Dalglish](#) / September 7, 2012 / [Be the first to comment](#)

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Richard W Dionne Jr

Aaron Ellison, Ph.D., 52, a senior ecologist and research fellow at Harvard Forest, here with a light field camera

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in hand, studies ants at Fort Barton last week.

TIVERTON — Ants are on the crawl in Fort Barton Woods, under rocks, in stone walls, in old and rotting wood, and under logs, along and off the the paths, in clearings and in the woods, mostly on the ground and not in trees.

Drawn to Tiverton's unique botanical enclave in Fort Barton, and its unstudied ant population, Aaron Ellison, Ph.D., 52, has driven twice recently all the way down from Harvard to collect and identify local ants — the first time such documentation has been done in over a century and a half.

Dr. Ellison, one of the country's leading experts about the ants of New England, and a co-author of a definitive treatise, just out, on the subject, is a senior ecologist and research fellow at Harvard Forest, the university's 3,500 acre preserve, outdoor classroom, and laboratory for ecological research in Petersham, Massachusetts.

"The key thing is, ants are everywhere," said Dr. Ellison when he visited Fort Barton at the end of August, for the second time recently. "Like spiders you're never more than three feet from one."

Just the month before, as a result of some fortuitous field work in July at Fort Barton, Dr. Ellison and his wife, Elizabeth Farnsworth, Ph.D., a plant physiologist and research ecologist with the [New England Wildflower Society](http://www.newfs.org) (<http://www.newfs.org>), exponentially added to what is known about local ants. Their Tiverton research was carefully planned.

From their home base in Massachusetts, Dr. Ellison and Dr. Farnsworth had set out to collect ants on Block Island for a few days.

Then, on their way back home, they stopped in [Fort Barton Woods](http://www.tiverton.ri.gov/recreation/FtB_CulturalHistory_Nature.pdf) ([http://www.tiverton.ri.gov/recreation/FtB\\_CulturalHistory\\_Nature.pdf](http://www.tiverton.ri.gov/recreation/FtB_CulturalHistory_Nature.pdf)), primarily because "it is known as a botanically interesting place," said Dr. Ellison.

Among other features, he said, the woods has got unique stands of old oak and holly, and an interesting natural history and place in local culture.

So their July visit to Fort Barton Woods was a kind of two-fer experience for the scientist couple: some ant collection coupled with observing the plant biodiversity of Fort Barton. "We thought we could do ants and plants in the same day," he said.

Besides, for Dr. Ellison, there's a connection between botany and entomology. He became interested in ants in the first place because he had been studying the [carnivorous pitcher plants](http://www.carnivorous-plants.com/pitcher-plant.html) (<http://www.carnivorous-plants.com/pitcher-plant.html>) that ate ants. "I wanted to find out what kind of ants they were eating," he said, and that led to his study of ants, professionally.

Before their stop off in Fort Barton, said Dr. Ellison, "not much was known about the ants of Fort Barton and Newport County."

For example, he said, "over the last 150 years, until July 2012, only four ant specimens — of just two species — had been collected in all of Newport County."

The results of their July stop-over far exceeded expectations. Fort Barton was filled with ants. In just four or five hours that July afternoon, he said, "we found 65 nests and collected at least as many specimens, representing 22 species."

That's 11 times more species than had ever been identified or collected in Newport County over the last 150 years.

Fort Barton contains an estimated 40-45 distinct species of ants, said Dr. Ellison. There are over 20,000 ant species in the world, and 132 species of ants in all of New England, he said, "most of which live mainly on the ground. Only two species live in the trees."

The world of ants in Fort Barton is more than complemented in print in a gorgeous new illustrated book about ants in all of New England, that Dr. Ellison and Dr. Farnsworth have just co-authored (with two others). Published by Yale University Press, it is entitled "[A Field Guide to the Ants of New England](http://harvardforest.fas.harvard.edu/ellison/field-guide-ants-new-england)." (<http://harvardforest.fas.harvard.edu/ellison/field-guide-ants-new-england>) It took three years to gather information for the book, says Dr. Ellison.

### Ant hunting: how it's done

Shortly after noon on a bright, warm day in late August, Dr. Ellison set out looking for ants along the [Red Trail in Tiverton's Fort Barton Woods](http://www.tiverton.ri.gov/recreation/FtB_TrailGuide.pdf) ([http://www.tiverton.ri.gov/recreation/FtB\\_TrailGuide.pdf](http://www.tiverton.ri.gov/recreation/FtB_TrailGuide.pdf)), not more than half a mile east of Highland Road and Tiverton Town Hall. Dappled sunlight filtered through the trees.

(<http://www.eastbayri.com.php5-12.dfw1-2.websitetestlink.com/wp-content/uploads/2012/09/antguy7.jpg>) The hunt was on, and Dr. Ellison was optimistic. "It's nice, it's warm, it's dry, and the ants will be out walking around," he said. He proceeded to turn over rocks (carefully replacing them as they were found), broke rotting wood apart, brushed leaves aside that carpeted the ground.

Over the next hour, Dr. Ellison uncovered and collected a dozen or so different ants, picking them up with his fingers, examining them with a hand-help magnifying glass, photographing some with a [Lytro light field camera](https://www.lytro.com/living-pictures/321522) (<https://www.lytro.com/living-pictures/321522>) that captures rays instead of pixels and seems perfect for insect photography.



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On the ground amidst some leaves, he spots a number of ants moiling around in the dirt. "This is really great," he says. "You have a nest, you have the winged ones here, getting ready to swarm and mate. Once a year they'll make males and mate, and this is that time of year."

As he works his way through the woods, he rattles off Latin names for ants he's identifying — and for the lay person, the common names: "the new world black ant," "the punctured ant," "the cornfield ant."

Each ant he collects is placed in alcohol in a small stoppered vial, and labeled, then recorded in a field notebook, with the GPS coordinates for where it was found.

Dr. Ellison speaks encouragingly about what could be accomplished scientifically, in charting ant populations and species.

"With a bunch of little boys and girls out here, we could learn a whole lot. The best way to collect ants is you just pick them up."

Local schools could sponsor a [BioBlitz](http://en.wikipedia.org/wiki/BioBlitz) (<http://en.wikipedia.org/wiki/BioBlitz>), he said. "Pick a day, a weekend, get some experts, parents, school children, teachers, and try to inventory as many species as you can — of ants, of spiders, of everything. Work with the [Rhode Island Natural History Survey](http://rinhs.org) (<http://rinhs.org>), the [Audubon Society](http://www.asri.org) (<http://www.asri.org>), the [Nature Conservancy](http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/rhodeisland/index.htm) (<http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/rhodeisland/index.htm>). " BioBlitzes are

being sponsored in many [locations](http://www.nationalgeographic.com/explorers/projects/bioblitz/) and communities elsewhere, he said.

Fort Barton could be a setting for such an event, he said. "I think the biggest thing really is you have a lot of non-native plant species here. They are a symptom of climate change or land use change. It's all warmer, with lots of stuff coming down from the atmosphere. Vegetation is becoming homogeneous. Ants see this too. They're restricted by temperature, by soil type, and so on. Diversity is being reduced. We now live in the [homogenocene age](http://www.orionmagazine.org/index.php/articles/article/6250/)."



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Aaron Ellison, Ph.D., 52, a senior ecologist and research fellow at Harvard Forest, here with a light field camera in hand, studies ants at Fort Barton last week.



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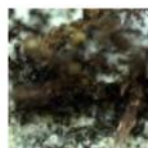


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