Ants!



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New England's got 133 different species and counting, and neither an adoring Hollywood or bay leaves will likely stop them.

Declare your allegiance now.

In the early days of the current century, Maine was invaded.

At least one nursery school was overrun. Children couldn't play on the playgrounds without coming under attack. Men and women fled porches and backyards, scooping up their kids and pets as they went. Campers rolled up their sleeping bags, hastily dismantled their tents and ran for cover.

The European fire ant had come.

The University of Maine bulletin on the matter read like the script of an old B film, possibly starring Vincent Price.

"European fire ants are a nuisance pest for people and a potential threat to the environment," the bulletin stated. "They aggressively defend their territory and readily sting humans, pets and livestock that have the misfortune to move slowly or rest within the ants' large foraging areas."

By then, Mainers had already been slapping at their flesh and treating nasty stings for more than two years. The European ant infestation reached plague proportions and nobody knew why.

Nobody knew why.

Welcome to the world of the ant, strange and frightening, but also familiar.

They organize armies and wage war. They create divisions of labor, assigning workers to babysit, to take out the trash and to shop for food. They form societies with organized hierarchies

and farm other creatures — aphids, mostly — for food. Ants are tough, resilient, absolutely dedicated to the task of survival.

"They've been around 60 million years," says Aaron Ellison, senior ecologist at Harvard University in Massachusetts, "and they'll probably be around a lot longer than we will. It's just a good thing for us that they're very small."

Ellison is a man who literally wrote the book on ants in New England. More of his thoughts on giant, mutant ants in a bit.

We are family

The snow is gone, the ground is thawing and ant season has begun. Soon we will find them creeping across our kitchen counters, gnawing at our base boards and marching across checkered picnic blankets. Ants! We avoid them at all costs. We stomp them, burn them with magnifying glasses and pay strangers to chase them away with dangerous chemicals.

But if ants are so vile, why do we also celebrate them?

For the rest of the month and into May, ants are on display at the University of Southern Maine's Lewiston-Auburn Campus. Big ants; ants made of paper and paint. Ants cover the walls and dominate the floor space. There's even ant music. It's ant idolatry at the Atrium Art Gallery, and if you didn't know better, you'd think someone here adores them.

The Ant Farm at USM-LAC is the work of four women who call themselves – what else? – the Ant Girls.

"Through their scientifically informed renditions of the ant anatomy and knowledge of ant behavior and physiology," the artists announce, "the Ant Girls communicate the intricacies and beauty of these tiny insects, which are so often overlooked."

Ants are celebrated in the form of art, in childhood games like $\underline{\text{Ants in the Pants}}$ and in film – so, so many films dedicated to the humble ant.

And why shouldn't we celebrate them? In spite of our indifference and hostility, ants are at least partially responsible for the world we have come to love.

"Something made all the good topsoil we have here in New England and that something is ants," says Ellison. "Without them, we wouldn't have the farmland we have. Ants are pretty important to us."

Ellison is the co-author of "The Field Guide to the Ants of New England," a tome that contains everything you want to know about these industrious critters. Ellison doesn't come right out and say that he's ready to serve in the ant army, but his respect for them is obvious. Why else would he spend time crawling through the Maine woods, pawing at the dirt in search of the latest, greatest species of ant?

That's right – there are well over a hundred species in New England alone (95 in maine,) and as far as we know, we haven't found them all yet. Until last summer, there were 132 species in New England Then Ellison and his people went rooting around in Baxter State Park and came up with number 133.

Say hello to *Formica adamsi*, a little bugger commonly found in the west and northwest parts of the country. Ellison and his team collected adamsi from a trail side nest west of North Traveler Mountain in 2013.

Maine's newest ant

Cool, right? *Adamsi* joins 95 other ant species in Maine, including carpenter ants, cornfield ants, pavement ants, Allegheny Mound ants and of course, those European fellows that caused so much unease in the early 2000s.

Not that you need to worry much about the European fire ant invading your personal space. Not indoors, anyway.

"This is a landscape pest more so than a household pest," says Elissa Ballman, research associate in invasive species and entomology at UMO. "These ants are an invasive species that are native to northern Europe, and so are very well adapted to our cold climate here in Maine."

The European fire ants, generally found along the Maine coast, actually have little to offer in the way of discomfort compared to their cousins to the south.

"We started calling it the ruby ant because it's not related to the Southern fire ants," Ellison says. "They're about as related as humans are to gorillas."

Whereas the sting of the southern version can cause serious pain, Ellison describes that of the ruby ant as more nuisance than agony.

"The stings aren't real bad," he says. "It's more annoying than anything else, like a mosquito bite. But when there are lots of them and they swarm over your picnic, it's not so good."

Swarms. There's your operative word. If all we ever faced was a single ant at a time, most of us wouldn't get into much of a tizzy. But ants are the antithesis of solitary creatures. Everything they do, they do as a group.

A very, very big group.

"The colonies can be really big," Ellison says. "Tens of millions of workers and their queen."

Big and dedicated. A colony typically includes the queen and her adult daughters servings as workers. Millions and millions of sisters working together toward one goal, with males occasionally allowed in for mating purposes. Ants know how to keep it in the family and it has served them well.

"We very often look at ants and say, wow. They're so much like people," Ellison says. "But the difference is that in a colony of ants, they're all related. It's like one big family. When you're family, you're more likely to help each other out."

Tens of millions of ants acting as one to get things done. Whether it's building, foraging or enslaving ants from other species, the colony is unified in their efforts. If the task at hand turns out to be removing your butt from their mound, things can get ugly fast.

Which is my way of announcing that it's time for a scary new subhead.

When ants attack!

In 1980, Andrew Hall of Lewiston was serving in the Navy and he arrived in Pensacola for advanced training. He'd never been to Florida before so he wasn't aware of the many, many dangers the state has to offer.

"I'd noticed the large mounds of sand dotting open spaces," Hall remembers, "but I didn't pay any attention to them. You'd think I might be passingly curious about where these hills came from, but nope, you'd be wrong. Guys who'd been there longer weren't inclined to warn we greenhorns off. Where would be the fun in that?

"So, one fine January day when the temps went into the 60s, I decided to take advantage of the warm weather and hang out on the green between the barracks," Hall says. "I spread a towel, put on shorts, and sat down to, of all things, polish and shine my boots, a tedious but mandatory chore. I must have been earnestly buffing and spit shining for a good 15 minutes before I felt anything. Then I noticed a prickly, itching and burning sensation on my butt. I shifted position thinking it was just the pins and needles effect you get from sitting too long in one position. Not only did that not help, the sensation grew worse by the second, only now it was all burn, no itch, and it was spreading – fast! Then, it was as if – I'm searching for the right simile here – I sat on white hot shards of glass, and not just that, but white hot shards of glass that moved and went into places best left unmentioned. Intimate places.

"I jumped up and looked down to see dozens and dozens of red ants crawling over my inner thighs and into regions of my body I could not see," Hall says. "I completely freaked out. I remember running into the barracks and jumping into a very cold shower, anything to get the little bastards off and cool the heat. Being a corpsman, I naturally thought it was wise to head to the dispensary to see what could be done – big mistake. What had been until then a mostly private agony became a public humiliation. Such terms as 'patient confidentiality' hadn't been invented yet, and what self-respecting sailor could resist the opportunity to rub salt in a shipmate's self-inflicted wounds? It was especially true that Southern sailors took special glee in mocking a Northerner. 'You stupid god-damned Yankee, what didja sit on a fire ant nest for? Serves ya right, you damned fool."

You don't want to laugh . . .

Across the world there are an estimated 22,000 species of ants, some of then ferocious, some downright cute. When you multiply that number by the millions and millions of ants per colony, the number is staggering. And when you look at the relatively wee number of people who fall victim to ant attacks, it's fairly clear that the creatures don't bother us much. They might creep across a sandwich and embarrass you in front of your coffee klatch now and then, but by and large, ants don't trouble us much.

Not outside of Hollywood, anyway.

'THEM!'

When I talked to ant expert Ellison, I wasn't going to bring up that 1954 B film I like so much. He's a Harvard man, after all. What does he know about cheesy films of that bygone age?

"You ought to go to Netflix," Ellison said, less than a minute into our conversation, "and rent the movie 'Them!"

<u>The movie</u> features ants the size of Winnebagos, the products of atomic testing in the deserts of New Mexico. It's great fun, as more and more people disappear into the giant mandibles of death and monster ants take over an entire Navy ship. Not to mention all the angry mutants living in the sewer system.

"It was one of the first, if not the first film with post-nuclear, giant mutants," Ellison says, in an almost giddy way. "Entomologically, it's actually very accurate. It's a great movie."

MacGyver once battled a a two-mile column of army ants in an episode called "Trumbo's World." I don't care how much dental floss, chewing gum and earwax the gifted one has, his keister isn't getting out of that mess without scars.

There's also "Empire of the Ants," with Joan Collins as a shady land developer confronted by colonies of enormous, cranky ants. And "Legion of Fire," which features flesh-eating ants. And "It Happened at Lakewood Manor," with the fetching Suzanne Somers getting chased all over the place by aggressive (and perhaps amorous) ants. But at least the ants in this one are actual size.

There's also "The Naked Jungle," with Charlton Heston battling ants in South America, which leads to the question: Are big-time stars like Heston, Somers and Collins secret fans of the ants?

And consider the kid-friendly movie "Antz," the story of a neurotic ant trying to break away from the totalitarian society, starring megastars Woody Allen, Sharon Stone, Gene Hackman, Dan Aykroyd, Anne Bancroft, Jane Curtin, Danny Glover, Jennifer Lopez, Sylvester Stallone and Christopher Walken.

I'm not saying ants control Hollywood. I'm just saying they probably do.

Know they enemy

All of this glory in the ant kingdom and yet we still look for new and better ways to destroy them. Every city and town has its share of exterminators – from the Orkin man to the handful of private bug killers – and there is no end to DIY home repellents found in stores and on the Word Wide Web.

In Maine, if you have pest ants around the house, they're probably carpenters, so-called for their habit of excavating, tunneling and living in wood.

"These are the big black or black and red ants people commonly see in their houses," says Ballman. "There are at least seven species of carpenter ants in Maine, though certain species are more likely to be in homes than others. Carpenter ants generally have a main colony and then several smaller satellite colonies. What we see in our houses are often these satellite colonies."

Your mother may have warned you at one time or another that if you keep dropping food, you'll get ants. Mom's probably right, but when the carpenters come marching in, it's probably more about water than your Doritos crumbs. For ants, wet is good.

"They prefer to nest in areas with high moisture and in areas such as hollow cavities and damaged wood," Ballman says. "Often times, homes with nests of these ants also have water-damaged wood, with ants nesting near leaking pipes, or roof damage. Because these ants love to nest in dead wood, people can easily bring these ants into their homes by bringing in infested fire wood. Wood should be inspected before bringing it inside."

If you see carpenter ants during the day, the experts say, it's probably because they're stressed out – ants are nocturnal and only make an appearance in daylight if they lack water, food or nesting space, or because it happens to be time to reproduce.

Use that information however you see fit.

Our readers are no strangers to the art of ant eradication. Some of them even have gross stories to go with them.

"Many years ago, my youngest daughter grabbed a chip bag out of the cupboard and had eaten about three chips before she looked in the bag – which was filled with ants!" screeches Lori A. Hallett of Auburn. "YUCK! I got some ant traps and put them in several cupboards, which were infested, and they were all gone within a few days."

Sounds pretty simple. But since we're fans of the wilder, more complicated stuff, we've prepared a whole separate story of ant remedies — with ingredients ranging from harsh detergents to gentle spices — that you can try yourself. See the related story.

Work, work, work

Ants serve as the most obvious example of a superorganism, which is just what it sounds like – an organism made out of many smaller organisms.

"The colony is the individual for ants," Ellison says. "You can think of the workers as apples on a tree, or leaves on a tree. They're all working for the colony."

Millions of ants will spend their lives working toward the success of the colony even though they have absolutely no chance of passing on their genes — only the queen and a select few males get to do that. All toil with nothing to show for it. But for the lowly worker ant, the colony is everything. Its survival is what matters, not the needs of the individual.

The very idea of superorganisms can get spooky. There's the concept of "distributed intelligence," for instance, a system in which individual organisms with limited intelligence are able to pool resources to accomplish goals well beyond the capabilities of the individual. Millions of tiny brains, you might say, make one super brain. It's an idea so inviting, the U.S. military is said to be researching the implications for its own use.

It's all very fascinating, but for me, I keep coming back to a couple of Ellison's observations. One is the rather chilling notion that if ants had evolved into larger creatures, humans would likely be reduced to food or slaves, if we were allowed to exist at all.

The other is the fact that ants have been around 60 million years. 60 million! Given the fact that modern humans have been around a mere quarter of a million years, you've got to wonder if we're really the smartest creatures on the planet. In terms of durability, know-how and a proven work ethic, the ant has us beat many times over.

"We've got a lot to learn from them," Ellison says.

I'm not saying that ants may one day rise up and become our overlords. I'm just using this space to declare my allegiance to them just in case.