

“The Fire Ants are Coming!! Wolfville Residents Sickly Scared!”

(Wolfville Life and Times,
05 December 2021)



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(Special contribution by reporter Dr. Peter Duinker, retired professor, Dalhousie University)

Caught totally unawares this past summer, the people of Wolfville are reeling under a population explosion of the dreaded European fire ant in the town.

“This could turn into a disaster”, said Mayor Kari Brown. “Hospital admissions during 2021 skyrocketed with people displaying shocking skin rashes due to that nasty little invasive alien species”.

Dr. Debbie Waycott, chief of emergency at the Wolfville and District Hospital, agrees. “We’ve got to get this critter under control before the whole town is banging at the hospital doors, everybody in searing pain and looking for relief of the ant stings”.

The European fire ant (*Myrmica rubra* L. is the scientific name) came to Canada a few decades ago and now is a major annoyance in many localities across the country.

Halifax-based scientist Sue Horton studied the city’s fire-ant populations some years ago (see attached articles). “I just knew this would happen somewhere, sometime in the future in the future – I just didn’t know where and when”.

Mayor Brown said she’s ready to put significant resources to development of a management plan for the epidemic.

“We have to wrestle this issue to the ground. So, I’m calling upon our best minds at Acadia University to apply their skills and knowledge during the winter to come up with a plan to control, and eventually eradicate, this pest”.



Fire ant infestation startles Nova Scotians

(Globe and Mail, 09 June 2009)

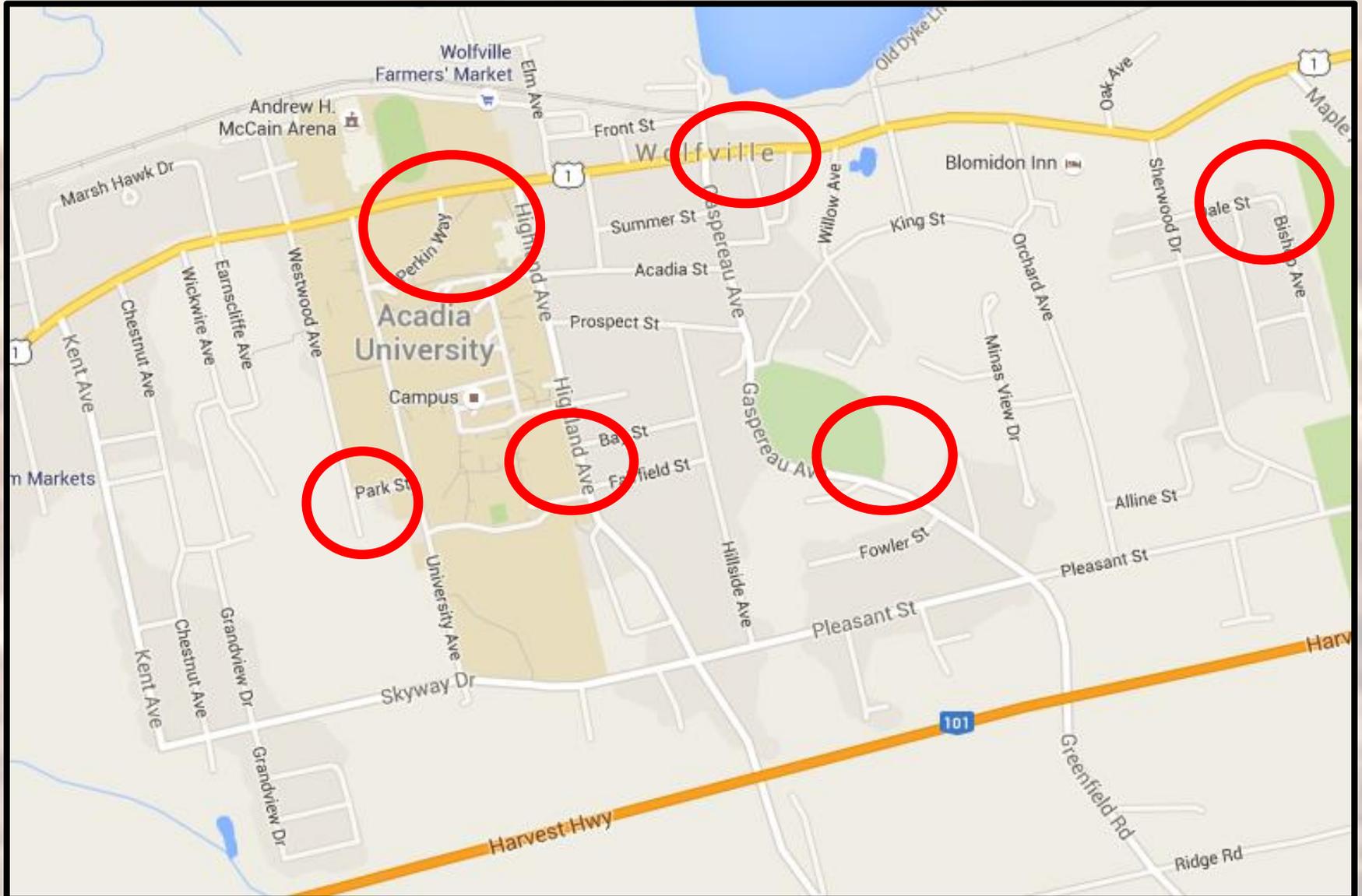
- They've got a bite like a hornet's sting, leave an itch as bad as poison ivy and are smart enough to learn to avoid insecticide.
- It sounds like a B-movie scare but this invasive species of ant is a real and growing concern in Nova Scotia. European fire ants have been turning up in new areas and there are localized infestations so bad that yards are unusable and people mow the lawn wearing protective gear.
- Halifax is holding a briefing Monday night on how residents can protect themselves from these insects, which have appeared in New Brunswick, Quebec and Ontario as well. But some scientists say little can be done to halt the march of the ants.
- "I'd want to be three kilometres away, on the other side of some water, maybe with nuclear weapons," joked Eric Georgeson, a retired entomologist with the province's Department of Natural Resources.
- "They don't spread fast but they're persistent," he said from his home in Lyons Brook, N.S. "I think the big thing with these ants is their ability to survive, to adapt and survive."
- Mr. Georgeson said that he started seeing the ants in many more parts of the province over the past decade and that their aggression toward other species has left the woods "quiet, too quiet."
- The ants can damage property, drive down real estate values and attack those who come too close to their homes. They are lethal only to a small percentage of people, who are thought to be hypersensitive to their venom, but cannot be dismissed as just a nuisance to others.
- "If you had a toddler that fell down out there, those ants would be all over them," Mr. Georgeson said. "It'd be like being bitten by a lot of hornets. It'd be a very unpleasant situation."
- Scientists warn that the national spread of the ants, which are vulnerable to cold, may be sped by warming winters.
- "The cold was one of the great things about moving here," said Rowan Sage, a professor in the department of ecology and evolutionary biology at the University of Toronto.
- He had so many fire ant mounds near his former home in Georgia that his garden was an "obstacle course." He would build bonfires on them occasionally, he said, but between the fire ants and the ticks and the chiggers, anyone who was active outdoors could look forward to months of itching every year.
- "We had two seasons...the scratching season and the non-scratching season," he said.
- The itching from a fire ant attack, which Dr. Sage compared to a case of poison ivy, comes up to a day after the initial pain of the bites.
- "When one of the ants starts biting it sends some kind of signal and they all start biting at once," he said. "If you want to know the feeling, get a needle and heat it up until it's red hot and then stick it in your skin."
- Eric Ashton knows that feeling all too well. A Halifax resident, he is watching nervously as his neighbours grapple with fire ant infestations. They haven't colonized his property, but he's not sure he will be able to stop them.
- "They seem to be a hell of a lot smarter than a normal black ant," he said. "You're always looking down...wondering 'are they here today?' It sounds like one of those television shows about aliens coming, but that's how we feel."
- The retiree has one neighbour who has to put on rubber boots before she'll dare go outside to hang her laundry.
- "There's got to be something that the city will do or allow us to do," he said. "They've got to allow us to kill the bastards. Not shoo them away, but kill them."

How to fight back against fire ants:

Halifax researcher says the key is getting rid of the nests
(CBC News, 02 August 2012)

- Fire ants are a growing problem in the Halifax area, but one researcher has a new idea on how to exterminate the backyard pests.
- The European fire ant is an invasive insect that aggressively defends its territory, even stinging humans and pets. The ants nest in soil, under rocks and in decaying logs, and spread easily.
- Susan Horton has been studying fire ants for the past few years as they spread throughout Halifax. She's studying ways to wipe them out.
- "Once you notice them, they will only increase," she said.
- "They have multiple queens and they have multiple nests, which gives them a bit of an edge in success. Because there's just so many of them. You're fighting a lot."
- Horton is testing her theory that to exterminate fire ants people have to remove their entire nests.
- The task is easier said than done, she says.
- "They're hard to see. Just looking at the lawn, this is like an every day lawn, you can't tell where the nests are, there are no mounds. So it's basically a sweep where you go in one direction and you check with your feet, you can hit the ground with your trowel."
- Nests are usually around structural pieces, like wood beams, and can be a metre long. Horton says they'll have a white larva and a queen — she's bigger than the rest, and sometimes has wings.
- Getting rid of the nests can mean digging up an entire lawn, and the surrounding lawns as well.
- "You keep on going until there's hardly any activity, which is going to take a while," said Horton.
- There is no municipal, provincial or federal funding available to manage the problem in Halifax.
- Richard Maclellan, the manager of the city's Sustainable Environment Management Office, says Halifax doesn't have an active plan to deal with fire ants.
- "As we gain information we're keen to continue to share that information that we learn," he said.

Main colonies of fire ants in Wolfville, summer 2021



Your assignment . . .

- **When you signed up for a master's degree in Biology and Environmental Studies last fall, you had no idea that advanced studies could be so exciting!**
- **Dr. Peter Duinkerson, your professor for the winter course “Managing Natural Resources and the Environment”, has been tapped by Mayor Brown and Acadia University President Sandy Plains to develop a management plan for Wolfville and the fire ant**
- **What will your approach be to develop the plan, which will be due to the Mayor on 15 April 2022?**
- **Given that the plan needs to include the following major components, please prepare a detailed proposal for the Mayor on how you will develop the plan from today (15 January 2022) to the delivery date:**
 - **A preliminary status assessment of the extent of the infestation across the town**
 - **A program of consultation with all relevant stakeholders and the citizens of Wolfville**
 - **A risk assessment outlining what the consequences might be if the town does not take immediate action**
 - **A program of research and monitoring to support control actions**
 - **A program of control treatments to reduce the infestation and eventual eradication**
 - **A communications and engagement program to keep all stakeholders informed and involved in the control program**

Notes:

- **Your task is to propose how you will develop the detailed plan, NOT to develop the plan itself**
- **To do this, you need to research the biology and ecology of the fire ant, the options for control, and the elements that make for a strong planning process and plan**
- **You should develop the proposal in accordance with the topics on the previous slide. So, be sure to answer the following questions:**
 - **What is your understanding of the current status of the extent and severity of the infestation across the town?**
 - **How will you consult with all relevant stakeholders and the citizens of Wolfville? Remember, a plan produced without consultation is likely to meet with a lot of resistance.**
 - **What will be the main components of a risk assessment, which you will undertake during the winter semester, outlining what the consequences might be if the town does not take immediate action?**
 - **What do you propose for a rigorous and vigorous program of research and monitoring to support control actions?**
 - **What is the range of options you intend to investigate as you prepare, over the next months, a program of control treatments to reduce the infestation and eventual eradication?**
 - **How do you propose to communicate and engage all the stakeholders so that they remain well informed and involved in the control program starting in May 2022?**

Online Resources

- http://entnemdept.ufl.edu/creatures/urban/ants/Myrmica_ruba.htm
- https://www.for.gov.bc.ca/hra/invasive-species/fire_ants.htm
- https://en.wikipedia.org/wiki/Myrmica_rubra
- <https://halifax.ca/boardscom/swrac/documents/EuropeanFireAnts.pdf>
- **Horton, Susan M.L.** 2011. Identifying the locations, movement and habitat of the European Fire Ant, *Myrmica rubra*; an invasive species in the urban/suburban environment of Halifax, Nova Scotia. Unpublished MSc thesis, Saint Mary's University, Halifax, NS. (susanmlhorton@gmail.com) <http://library2.smu.ca/handle/01/24821>