BIRDBRAINED SCIENCE

With spotted lanternflies, squash away!

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Frogs, locusts, gnats... and lanternflies?

Though far removed from the Bible, spotted lanternflies are the latest plague (disregarding frat flu) to cross the University of Connecticut. You've most likely seen them by now: the palm-sized, lumbering insects that have slowly taken over our campus sidewalks and lecture hall walls.

Storrs isn't facing this insectoid invasion alone. Spotted lanternflies have crawled, jumped and flown their way across Connecticut. As of this year, they are now found across all eight counties in the state.

Spotted lanternflies are an invasive species and are considered non-native to the United States. Hailing from China, lanternflies pose a severe threat to our native biodiversity and agriculture. Although they do not bite, nymphs and adults use their piercing mouthparts to drain large amounts of phloem sap from plants, weakening their overall health. Not only does this damage plants, but it makes them more prone to infection and attack. Young vines and saplings are especially vulnerable to these insects.

Spotted lanternflies' voracious appetites have a secondary consequence. While feeding, the flies are known to excrete a waste product called honeydew. This sticky substance can grow into a black, sooty mold. The honeydew and its mold are not toxic to humans. The mold, however, can block sun from plants, preventing them from photosynthesizing.

Honeydew also attracts pests, which damage the plant more. Also attracted to the sticky waste are wasps and hornets –– one of several reasons why UConn is currently swarming with the stinging insects.

In Pennsylvania, where the bugs first made landfall in 2014, the destruction of lanternflies has amounted to an estimated $13.1 million annually in the state's quarantine zone. Regional economic damages amounted to $50.1 million annually, with over 480 jobs lost –– all from an insect no larger than an eraser. If the insects were to spread past the quarantine zone, a worse-case scenario, expected destruction would total $554 million annually and 5,000 jobs lost.

Lanternflies are still new to Connecticut, and their exact impact on the state's economy is not clear yet. Their presence necessitates quick action to stymie their worst effects and offset their rapid spread. But how can we take action?

First, accurate identification is needed. Know what a spotted lanternfly looks like! Adult spotted lanternflies are about one inch long and one half inch wide. They have tan forewings, which are bespeckled with black spots. Their prominent hindwings have lower red patches and upper black patches, and are separated with a white section in between, making them easier to spot on the sidewalk. Spotted lanternflies' most notable features are their bright red hindwings, though these are mostly hidden unless their wings are spread. Baby lanternflies, known as nymphs, are black with white spots. As they grow, they become red with black and white spots. You can see nymphs seasonally from April to October.

Once you've identified your lanternfly, don't kill it immediately — snap a picture to document it for regional environmental authorities. The Connecticut Agriculture Experiment Station runs a submission portal on their website to document the spread of lanternflies. Alternatively, if you enjoy games (and leaderboards), SPOTTED! is a web-based browser app that turns hunting and eliminating lanternflies into a competitive community challenge. To earn points and badges, photo evidence is required, and images are sent to governing bodies.

Once you've captured your creepy-crawly, you can get on to killing it. There are, of course, many options –– the simplest option being simply squashing it underfoot. If this method of mechanical control makes you squeamish, there are a plethora of alternative options. Using a shop vacuum, handheld vacuum or rechargeable vacuum to suck up large clusters of lanternflies can provide a quick and efficient extermination method. Leave the insects inside the sealed vacuum bag or canister for a couple of days to ensure they die. White vinegar or neem oil, when placed in a spray bottle, can kill a lanternfly almost instantaneously after contact.

If you're feeling bougie in your chemical warfare, essential oils are also effective at killing lantern flies through contact. You can add a few drops of tea tree oil, peppermint essential oil or lavender oil to water and spray the solution directly on the flies to repel and kill them instantly. The strong smell emitted by these oils disorients lanternflies and makes it difficult for them to survive. Dish soaps are also effective at exterminating lanternflies and suffocate them in bubbles.

Several preemptive traps also exist, though careful consideration should be taken when using them to avoid killing native insects. Instead of circle traps or sticky bands, consider targeting spotted lanternfly eggs. Lanternfly eggs can be identified by their grayish-brown, mud-like appearance. From late fall to spring, they can be found along the sides of tree trunks, decks, patio furniture and vehicles. The eggs can be scraped off using a plastic card or putty knife and put them into a sealable bag containing rubbing alcohol or hand sanitizer to ensure they die. Once again, a dish soap mixture can be sprayed on the eggs to destroy them.

To misquote the words of Smokey Bear, park naturalist extraordinaire, "only you can prevent the spread of lanternflies." These invasive pests pose a serious threat to both our ecosystem and economy. So go out there and squash away to your heart's content — for the sake of the environment.



A child kills spotted lanternflies at a park in New York City. Stepping on spotted lanternflies is encouraged by many state and local agricultural agencies as a civic duty in order to slow their spread.

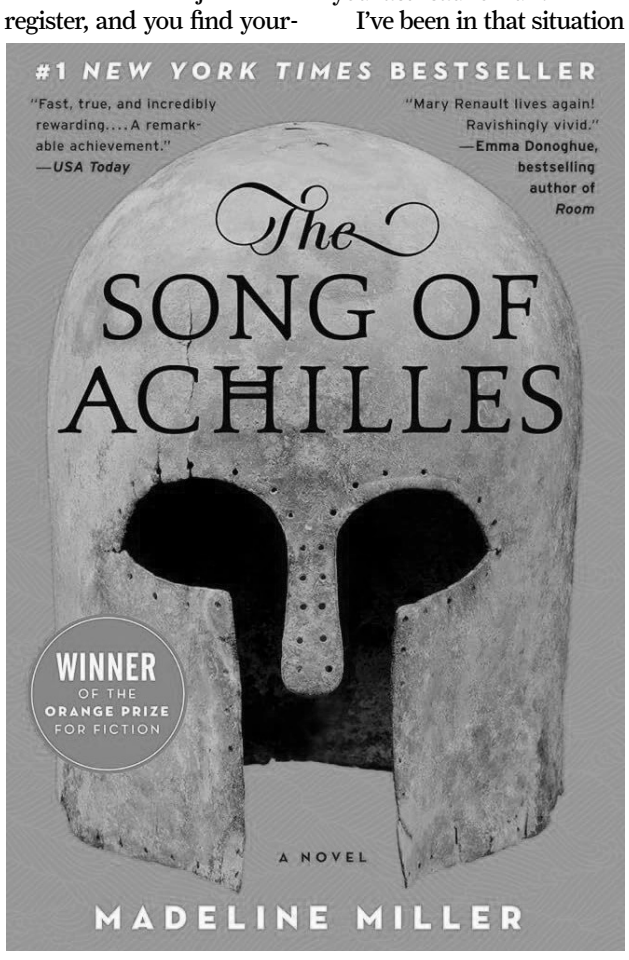
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5 BOOKS TO MAKE READING EXCITING AGAIN

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We all have moments when picking up a book is hard. The words just don't register, and you find yourself rereading the same passage repeatedly without really knowing what it's saying. Reading becomes a chore, and soon enough it's been three months since you last read for fun.

I've been in that situation many times, and I'm always itching to find a book that will pull me out of it. Whether you want a page-turner or a cozy romantic comedy, these five books might help you shake the "I hate every book I read" phase.



The Song of Achilles is a 2011 debut historical fiction novel by Madeline Miller. The novel follows the events of Homer's "The Iliad" through the eyes of a sometimes-overlooked character, Patroclus.

PHOTO COURTESY OF AMAZON

"The Song of Achilles" by Madeline Miller

If you love Greek mythology or just enjoy a good myth retelling, this could easily be a one day read for you.

"The Song of Achilles" follows the events of Homer's "The Iliad" through the eyes of a sometimes-overlooked character, Patroclus. With elements of romance, war and tragedy, you won't want to put it down.

"Conversations with Friends" by Sally Rooney

This one is perfect if you want something quiet and character driven. It follows Frances, a sharp college student, as she gets tangled up with a married couple she meets through her performances.

Rooney's dialogue is so natural and common that it feels like you are there with the characters, and the short chapters make it easy to keep turning the page.

"The Kite Runner" by Khaled Hosseini

If you want a story that grabs you emotionally, this is it. Set in Afghanistan, it follows Amir as he deals with a childhood betrayal and spends his adult life searching for redemption. It's heartbreaking, but it's also so compelling that you become invested in it.

"Big Little Lies" by Liane Moriarty

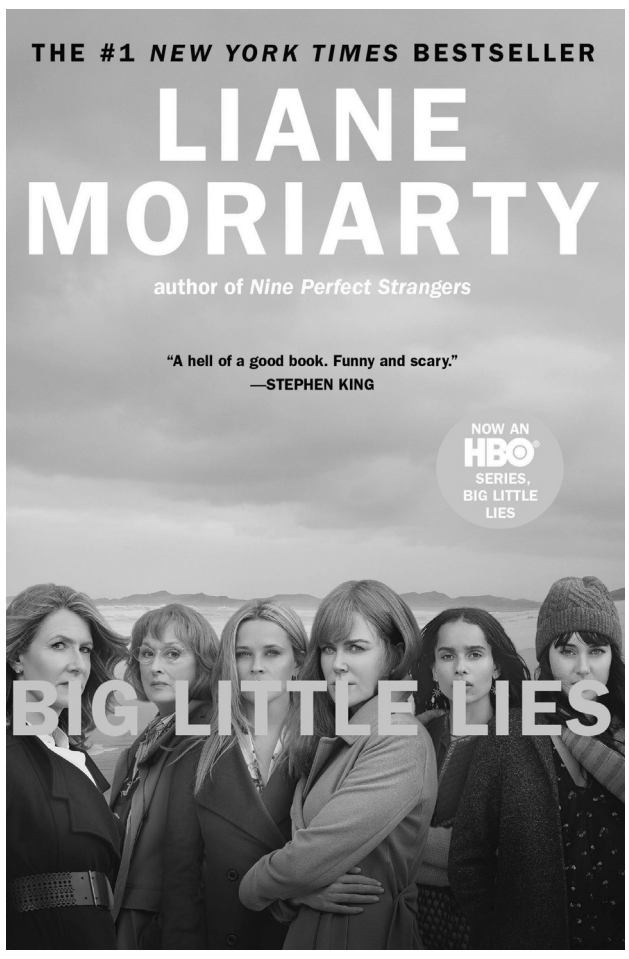
For something fast, funny and full of drama, try this one. It centers on three mothers in a seaside town whose lives unravel in the lead-up to a mysterious incident at a school trivia night.

Part comedy, part mystery, it's the kind of book that makes you say "okay, I'll stop after this chapter" and then you never do stop. You might know it from the new TV show adaptation, but take it from me, the book is well worth the read.

"The Guest List" by Lucy Foley

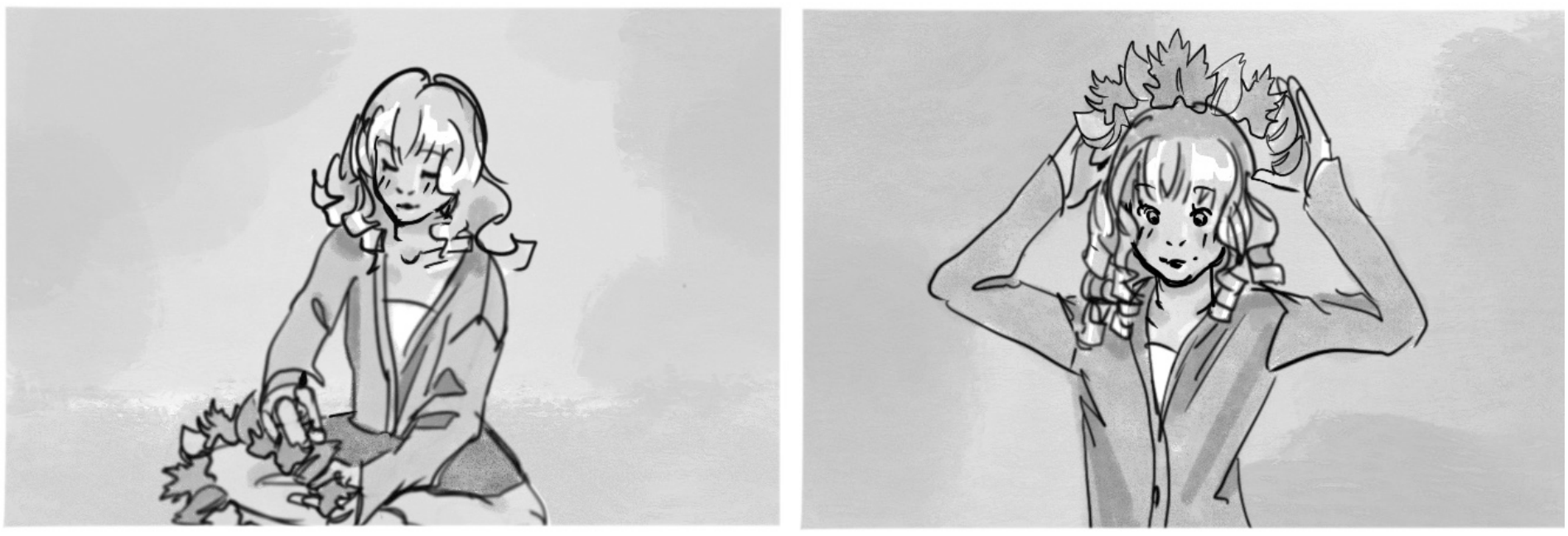
If you're in the mood for a thriller, this is a great pick. A glamorous wedding on an Irish island turns into a homicide, and the story is told from multiple points of view, with a body discovered and the victim's identity kept secret until late in the book. The shifting perspectives and constant twists keep you flipping pages to find out just who committed the crime.

If you find yourself stuck with no urge to read at some point over the next few months, pick up one of these novels and let it push you back toward being a bookworm. And even if you've never liked reading and want to start, these are some of the best books to make you want to keep going.



Big Little Lies is a 2014 psychological thriller and domestic fiction novel by Australian author Liane Moriarty. The darkly comedic tale was turned into a screen adaption on HBO Max, and featured actors Nicole Kidman, Reese Witherspoon, Shailene Woodley and several more A listers.

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