

# How native and exotic plants coexist

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When people hear about exotic plants invading a new environment, there is usually a negative connotation. They often think of plants like kudzu, Chinese privet, or Japanese honeysuckle, whose thuggish behavior can push out the native plants in their backyard or local parks.

While this worse case scenario can happen, it isn't always the case, according to ecologists at Winthrop University and Brown University in an article published in the journal [Ecology Letters](#).

"Basically, we found that exotics plants grow more and can essentially out-compete natives, which normally is a problem," said lead author Matthew Heard, a Winthrop biology faculty member. "But in these communities there are also insects, which prefer to eat exotic plants instead of natives and can keep their growth in check. As a result, [native plants](#), which are less susceptible to these insects can thrive even when exotic plants that are better competitors are nearby."

Heard wrote his Ph.D. dissertation at Brown on how native and exotic plants coexist along the coasts of Rhode Island and Massachusetts. His former advisor, Brown University Assistant Professor Dov Sax, is the paper's co-author

In the paper published online Nov. 19, Heard and Sax note that there has been little experimental [fieldwork](#) conducted to determine what factors allows native and exotic plants to live side by side. While there have been many potential explanations tossed out, it turns out that just being different is the main reason that they can actually coexist.

"It turns out that in many places, native and exotic plants can actually live together," Heard said. "And this means that exotic plants aren't inherently bad like many people think, but it also means that it is important to figure out what is driving this balance between these two groups."

How long this precarious balance will remain is unknown, but for now it isn't just the case of exotic species being problematic. Instead it's the story of how differences between two groups of plants allow them to survive along side each other.

**More information:** The article can be found online from *Ecology Letters* here: [onlinelibrary.wiley.com/doi/10 ... 1/ele.12030/abstract](https://onlinelibrary.wiley.com/doi/10.1111/ele.12030/abstract)

Provided by Brown University

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