

Study finds small mammals aid expansion of warm-climate trees

July 19 2019



Credit: CC0 Public Domain

A new study by Alessio Mortelliti, an assistant professor of wildlife habitat ecology at the University of Maine, finds small mammals could affect whether trees spread to new areas in a warming climate.

Mortelliti's research, which was published in the journal *Oikos*, looks at the behavior of small forest mammals that eat acorns and other tree seeds.

By choosing certain seeds and rejecting others, the animals can alter the [trees](#) that make up a forest, according to a Second Century Stewardship news release.

If they eat all the seeds in their territory, those seeds can't grow into new trees. Seeds that are carried away, stored for later, and then forgotten can germinate away from their parent tree, the release states.

Mortelliti and his team studied how animals react to "new" or unfamiliar seeds of warmer-climate trees.

"The way in which seed predators contend with the novel [seed](#) or fruit, and the way in which this interaction subsequently unfolds could have dramatic consequences on a plant species' successful establishment in the new ecosystem," the researchers wrote.

Results suggest the interaction between [small mammals](#) and novel seeds may have cascading effects on climate-induced plant range shifts and community composition, according to the researchers.

More information: Alessio Mortelliti et al. Small mammal controls on the climate-driven range shift of woody plant species, *Oikos* (2019).

[DOI: 10.1111/oik.06643](https://doi.org/10.1111/oik.06643)

Provided by University of Maine

Citation: Study finds small mammals aid expansion of warm-climate trees (2019, July 19)

retrieved 21 March 2023 from <https://phys.org/news/2019-07-small-mammals-aid-expansion-warm-climate.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.