

Higher demand for wild leeks has foragers overeager, threatens plant community

November 9 2022, by Jeff Mulhollem



It can take many years for plant populations in ramp patches like this to rebound from even modest harvests, researchers warn. With the increased interest and demand for ramps, they want to learn and promote how to best steward wild populations of the forest herb. Credit: Penn State. [Creative Commons](#)

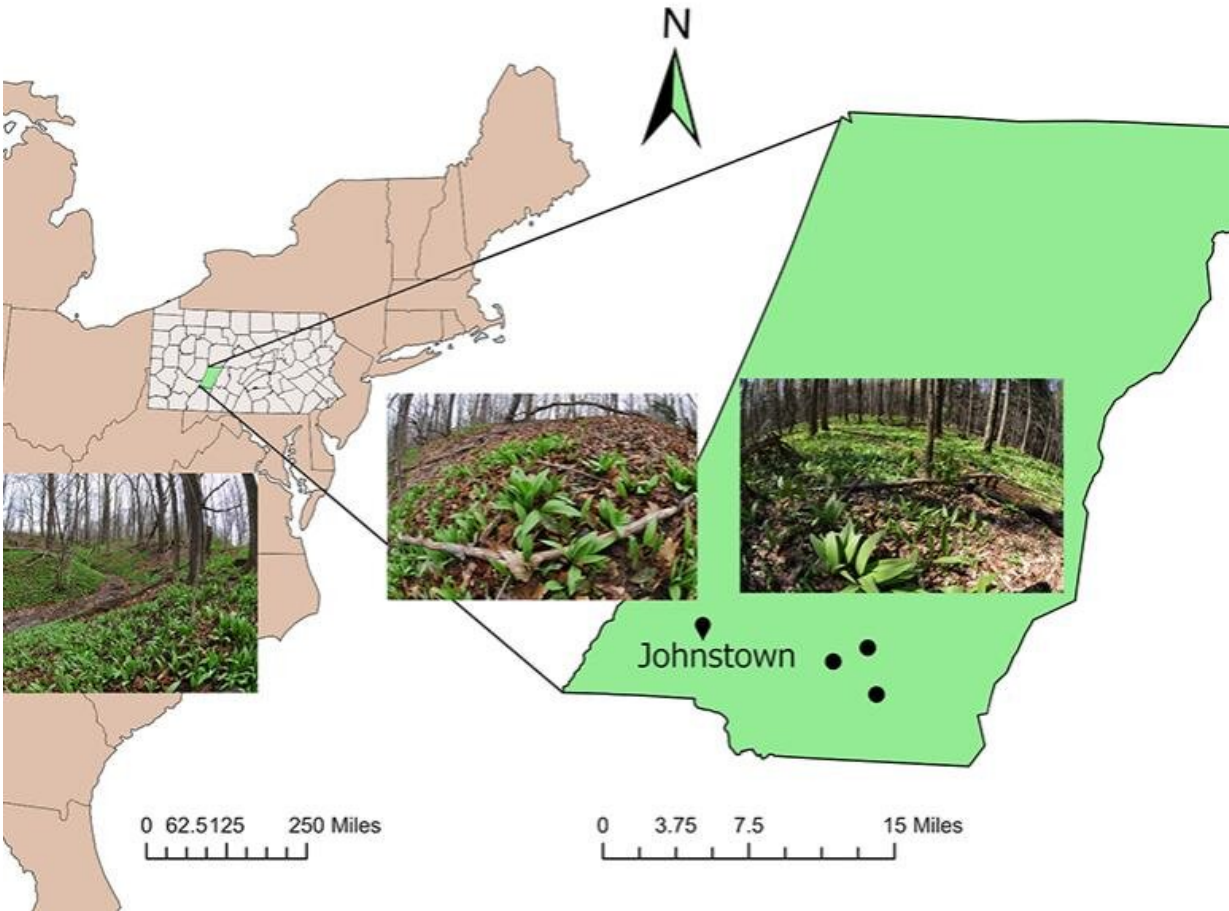
Early spring enthusiasm for ramps—also known as wild leeks—may be causing lower plant yields and threatening communities of the forest herb, according to Penn State researchers.

Eaten for thousands of years by Native Americans, ramps are valued for their strong garlic-like aroma and delicious onion-like flavor. More recently, they have become popular among foodies and restaurant chefs, leading to an increased demand by urban consumers and a higher price point for the spring plant.

A new study by a team of Penn State researchers shows that waiting a month longer before harvest, which typically occurs between March 1 and May 30, would go a long way toward conserving communities of the wild onions and would increase the plants' yield overall.

Found primarily in the forests of Appalachia, ramps' newfound popularity raises concerns around supply, noted Eric Burkhart, associate teaching professor in ecosystem science and management. The leaves, stems, bulbs and flowers of the plant are all edible, and ramps can be used and cooked the same as field-grown, domestic onions.

"With even modest harvests from [ramp](#) patches, it can take years and years for those plant populations to rebound," he said. "With the increased interest and demand for ramps, we want to learn and promote how to best steward wild populations of ramps and see how we can protect this cultural keystone resource for future generations."



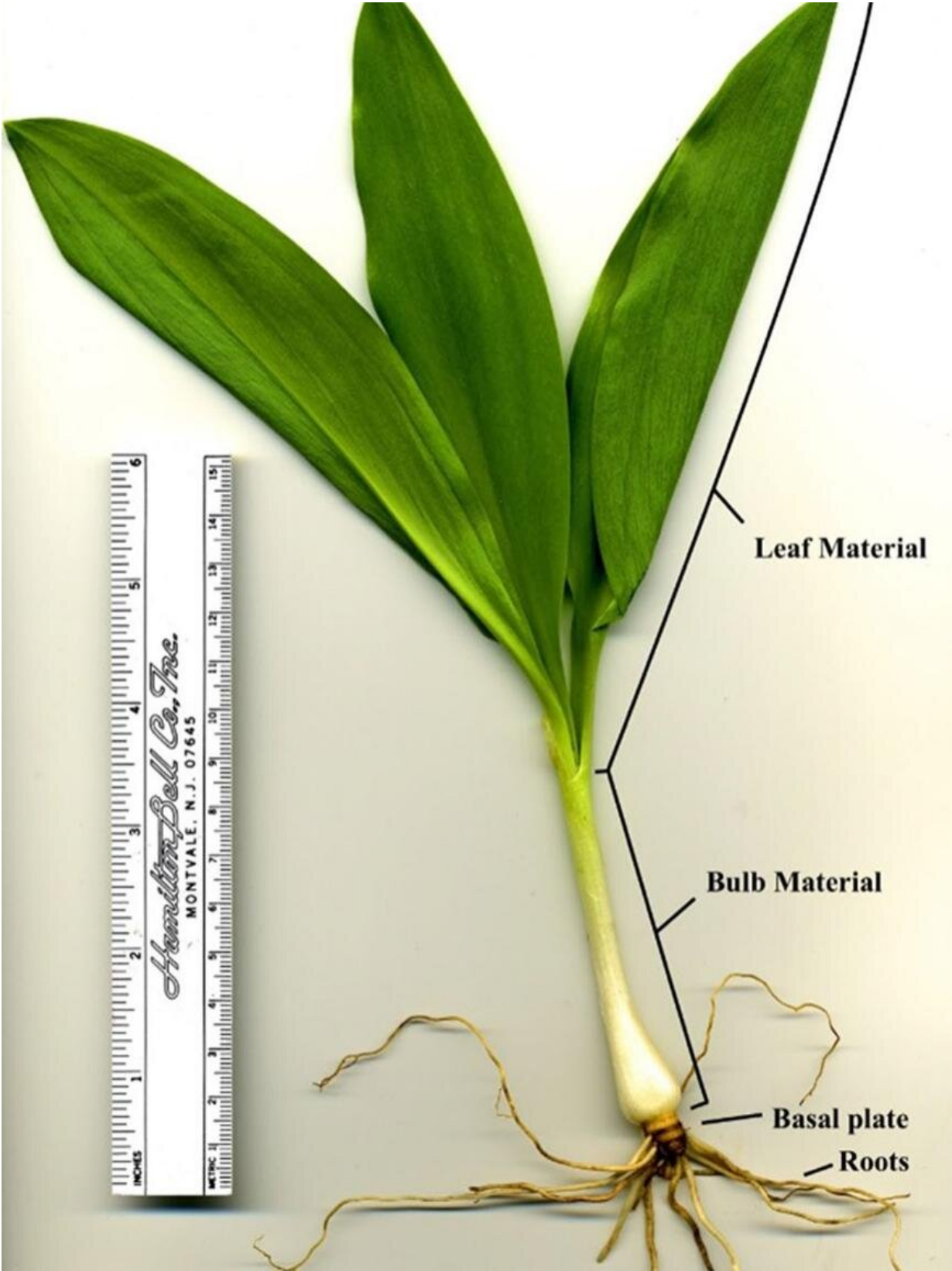
Sampling was conducted at three sites located in Cambria County, Pennsylvania. One population was on private property and located on a sloped forest bench. Populations two and three were located on public lands on upland ridge tops. All populations originated as wild plants, but one was managed for about 10 years as a forest farm. Credit: Penn State. [Creative Commons](#)

Burkhart's research group in the College of Agricultural Sciences has been studying populations of eastern forest plants such as ginseng, golden seal and ramps for more than a decade, assessing harvest levels, foraging practices, and investigating both the prospects and [best practices](#) for forest farming, an agroforestry practice that many Pennsylvania forest landowners increasingly are interested in.

The results of this ramps study are straightforward, according to team member Sarah Nilson, assistant professor of biology at Penn State Beaver, who spearheaded the research. Ramp harvesting is mainly about digging, which is labor intensive, she explained.

"If foragers would just wait a little longer, they can actually collect the same weight of ramps with less effort because the plants are larger," Nilson said. "We will be trying to promote this little saying: Fewer ramps per pound is more ramps in the ground."

In findings recently published in *Agroforestry Systems*, the researchers reported that ramp harvest timing greatly influences [harvest](#) weights. Total ramp and bulb weight increased 250% and 400%, respectively, between early season and late season stages, they pointed out. Also, they noted, three-leafed ramp plants were significantly larger than two-leafed ramps.



Three-leafed plants are generally larger, the researchers noted, and by targeting those plants, foragers put less of a dent in the population, especially if they are selling commercially. Credit: Penn State. [Creative Commons](#)

"Based on the study's results, two ways to promote ramp conservation are to delay ramp harvests until about 30 days after emergence in the spring to ensure that the maximum bulb size has been reached, and to select three-leafed plants, which are generally larger in size," the researchers suggested. "By targeting mid-late season plants, foragers are putting less of a dent in the population, especially if they are selling commercially."

According to Burkhart and Nilson, these results suggest that consumers are an integral factor in conservation. In this regard, [educational materials](#) and events are currently being developed for the spring 2023 [harvest season](#) to help share information about these and other relevant findings the team has made regarding best practices for ramp foragers, Burkhart said.

More information: Sarah E. Nilson et al, Ramp (*Allium tricoccum* Ait.) weight differs across the harvest season: implications for wild plant stewardship and forest farming, *Agroforestry Systems* (2022). [DOI: 10.1007/s10457-022-00790-3](#)

Provided by Pennsylvania State University

Citation: Higher demand for wild leeks has foragers overeager, threatens plant community (2022, November 9) retrieved 22 May 2024 from <https://phys.org/news/2022-11-higher-demand-wild-leeks-foragers.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.