

New fiddlehead study warns against overharvesting

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Credit: David Fuller

Fiddleheads, a traditional springtime delicacy in New England and Eastern Canada, can decline significantly over time if harvesters pluck too many from the same plants in a season, according to a new four-year study conducted by a University of Maine Cooperative Extension expert.

Fern crowns with all the fiddleheads removed in a single harvest

suffered significant decline in growth in the subsequent years, and in some cases were killed outright, according to David Fuller, UMaine Extension agricultural and nontimber forest products professional.

A more sustainable harvest removed 50% of the fiddleheads in a one-time picking, but also resulted in reduced frond production in subsequent years.

In his study of the long-term effects of harvesting ostrich [fern](#) (*Matteuccia struthiopteris*), Fuller analyzed how varying degrees of fiddlehead harvesting affect frond production and mortality. His findings were published in the *Journal of the National Association of County Agricultural Agents*.

The study focused on 30 ostrich ferns, each producing a minimum of four fiddleheads per [crown](#), and growing under mature sugar maples in a naturalized stand in Franklin County. Every spring, Fuller collected 100% of the fiddleheads from one group of ferns, 50% from another group and none from the third. He only harvested once each year from 2006 to 2008.

Fuller observed a significant decline in production in the plants from which he collected 100% of their fiddleheads. By the third consecutive year of harvesting, those ferns exhibited a drop in mean fiddlehead yield per crown from 5.1 to 1.4, as well as mortality in 50% of the crowns.

The plants in which he harvested half of their fiddleheads exhibited a decrease in the mean number of fiddleheads from six to 4.7 per crown in the third year. The control group of [plants](#) left unharvested produced the same average number of fiddleheads every year.

"These findings suggest that fewer than half of the fiddleheads from a given plant could be harvested and be sustainable with no follow-up

harvest that year," Fuller says. "Plants whose fiddleheads have already been harvested by other harvesters that spring should be left alone."

More information: Effects of Long-Term Fiddlehead Harvest on Ostrich Fern, *Matteuccia struthiopteris*.

www.nacaa.com/journal/index.php?jid=772

Provided by University of Maine

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