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Stem girdling was used to induce the mortality of >6,700 tree within the US-UMB footprint.



The US-UMB site, operating since 1998, served as an unmanipulated control.



The disturbance manipulation resulted in patchy tree mortality, similar to that which may result from insects, pathogen, and extreme weather.

The Forest Accelerated Succession Experiment (FASET) was established in 2008 to examine the effects of a moderate severity disturbance on forest carbon cycling processes. Hosted by the University of Michigan Biological Station, the 39-hectare manipulation within the **US-UMB** tower footprint simulated moderate severity disturbance by stem-girdling all early successional aspen and birch, which comprised ~40% of all canopy trees prior to the experiment. The results indicate a surprisingly high capacity to recover from disturbance, with “released” vegetation supporting an increase in forest carbon sequestration following the decline of aspen and paper birch.



Carbon flux exchange measurements from eddy-covariance towers were complemented with ground-based measurements of soil respiration, tree growth, and canopy structure, available via BADM.

All images by Chris Gough