

## **ForestCrowns - A Software Tool to Monitor Hardwood Trees**

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### ***ABSTRACT***

*Researchers with the U.S. Forest Service Southern Research Station have developed a computer software tool that can quickly estimate forest canopy transparency from below using digital photographs. The software, called ForestCrowns, can be used to detect changes in tree canopy structure over time. Higher transparency values in subsequent years could be an indication of disease, insect, or storm damage while decreasing transparency values would indicate sustained tree growth. Since the health of forest trees has a direct impact on the volume and quality of the products they provide, ForestCrowns can help insure maximum utilization of hardwood trees by detecting health issues early. ForestCrowns can analyze individual pictures or batch process multiple pictures at once, and is capable of isolating individual tree crowns for single tree analysis. The software supports both fisheye and standard photographic images.*