Artificial Introduction of Virulent and Hypovirulent Strains of *Endothia parasitica* Using Large Scratch Wounds

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One virulent and 11 hypovirulent isolates of *Endothia parasitica* were introduced Into scratch wounds made on the hark of healthy American chestnut stems growing in two cut-over areas near Parsons and Bartow, West Virginia. Twenty-five-cm scratch wounds, encircling half the circumference of the tree, were made at ground level and at 1.5 m and 3.0 m off the ground. Replicate stems were scratched and inoculated with one of the hypovirulent isolates. A second group of healthy trees (40 to 90) was left unwounded within the plot. Other check plots included trees that were scratched and inoculated with water and agar, scratched and inoculated with virulent inoculurn, and a plot where trees were not scratched. An attempt was made to reduce virulent inoculum in all study plots by removing infected trees.

The goal of this study is to follow the course of future infections on both the scratched trees and various check trees. To do this, isolations will be made from new infections that arise on trees within the various treatment plots. By introducing massive amounts of hypovirulent inoculum, it is hoped that evidence for the establishment of hypovirulent strains can be acquired.