

## **Jared W. Westbrook**

Director of Science, The American Chestnut Foundation  
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### **Professional Preparation**

University of Michigan	Environmental Science	B.S., 2004
University of Florida	Botany	M.S., 2009
University of Florida	Plant Molecular and Cellular Biology	Ph.D., 2014

### **Appointments**

2015-	Director of Science, The American Chestnut Foundation
2009-2014	Ph.D. Student in Plant Molecular and Cellular Biology, U. Florida
2007-2009	M.S. Student in Botany, U. Florida
2005-2006	Research Associate, Harvard U. Organismic & Evolutionary Biology

### **Professional and Synergistic Activities**

- Oversee operations the American Chestnut Foundation's breeding program at Meadowview Research Farms
- Frequently give public talks on American chestnut restoration to diverse audiences
- Contributor and reviewer for The Journal of the American Chestnut Foundation

### **Grants Received**

- 2019 Schmutz J, Grimwood J, **Westbrook JW**. Second generation Chinese chestnut reference genomes. Foundation for the Carolinas, \$135,000
- 2019 Holliday JA, **Westbrook JW**. Genome-guided adaptive introgression in disease resistant American chestnut populations. USDA NIFA AFRI competitive grant, \$500,000
- 2018 **Westbrook JW**, Holliday JA. Increasing genetic diversity in American chestnut for climate change resilience. Colcom Foundation, \$100,000
- 2018 **Westbrook JW**, Jarrett BT, Fitzsimmons SF, Saielli TM, Collins KM. Rangewide sampling of American chestnuts to study the genomic basis of local adaptation. Fidelity Foundation, \$30,000
- 2018 **Westbrook JW**, Romero-Severson J. Ancestry Informative Genotyping in American chestnut backcross populations, Tucker Foundation, \$30,000
- 2017 Schmutz J, **Westbrook JW**. The American chestnut reference genome project. Colcom Foundation, \$100,000
- 2017 **Westbrook JW**, Holliday JA. Genomic prediction of disease resistance in American chestnut backcross populations, Oak Hill and Allegheny Foundations. \$175,000
- 2016 **Westbrook JW**, Carlson J, Holliday JA, Nelson CD, Georgi L, Hebard FV. Identification of genes and alleles for blight resistance in *Castanea* species. USDA NIFA AFRI competitive grant, \$150,000
- 2015 Holliday JA, **Westbrook JW**. Genomic selection and comparative association mapping for resistance to blight and *Phytophthora* root rot in two

- populations of backcross hybrids of American chestnut. Forest Health Initiative. \$30,000
- 2015 **Westbrook JW**, Comparative mapping of blight resistance genes in American chestnut backcross hybrids, Tucker Foundation, \$30,000

## Publications

1. **Westbrook JW**, Holliday JA, Newhouse AE, Powell WA. 2019. A plan to diversify a transgenic blight-tolerant American chestnut population using citizen science. *Plants, People, Planet* (accepted).
2. **Westbrook JW**, James JB, Sisco PH, Frampton J, Lucas S, Jeffers SN. 2019. Resistance to *Phytophthora cinnamomi* in American chestnut (*Castanea dentata*) backcross populations that descended from two Chinese chestnut (*Castanea mollissima*) sources of resistance. *Plant Disease* In press.
3. Tuskan GA, Groover AT, Schmutz J, DiFazio SP, Myburg A, Grattapaglia D, Smart L, Yin T, Aury JM, Kremer A, Leroy T, LeProvost G, Plomion C, Carlson JE, Randall J, **Westbrook JW**, Grimwood J, Muchero W, Jacobson D, Michener JK. 2018. Hardwood tree genomics: Unlocking woody plant biology. *Frontiers in Plant Science* 9: 1799.
4. **Westbrook JW**. 2018. Merging backcross breeding and transgenic blight resistance to accelerate restoration of the American chestnut. 2018. The American Chestnut Foundation's breeding and selection plan 2015 – 2025. [www.acf.org](http://www.acf.org)
5. **Westbrook JW**, Jarrett BT, 2018. Accelerated blight resistance screening with small stem assays. *The Journal of the American Chestnut Foundation* 31(1) 22:24
6. **Westbrook JW**. 2017. Genomic selection for disease resistance in American chestnut backcross populations. *The Journal of The American Chestnut Foundation* 31(3):38-42
7. Steiner KC, **Westbrook JW**, Hebard FV, Georgi LL, Powell WA, Fitzsimmons SF. 2017. Rescue of American chestnut with extraspecific genes followed by its destruction by a naturalized pathogen. *New Forests* 48: 317-336
8. **Westbrook JW**, Chhatre VE, Wu LS, Chamala S, Neves LG, Munoz P, Martinez-Garcia PJ, Mockaitis K, Neale DB, Kirst M, Nelson CD, Peter GF, Davis JM, Echt CS. 2015. An annotated consensus genetic map for *Pinus taeda* L. and extent of linkage disequilibrium in three genotype-phenotype discovery populations. *G3: Genes|Genomes|Genetics* 5:1685-1694
9. **Westbrook JW**, Walker AR, Neves LG, Munoz P, Resende MF Jr, Neale DB, Wegrzyn JL, Huber DA, Kirst M, Davis JM, Peter GF. 2015. Discovering candidate genes that regulate resin canal number in *Pinus taeda* stems by integrating genetic analysis across environments, ages, and populations. *New Phytologist* 205: 627-641
10. **Westbrook JW**, Resende MFR, Munoz P, Walker AR, Wegrzyn JL, Nelson CD, Neale DB, Kirst M, Huber DA, Gezan SA, Peter GF, Davis JM. 2013. Association genetics of oleoresin flow in loblolly pine: discovering genes and predicting phenotype for improved resistance to bark beetles and bioenergy potential. *New Phytologist* 199: 89-100.

