

RUTGERS

New Jersey Agricultural
Experiment Station

Forestry Research Advisory Council (FRAC)

Jason Grabosky
Chair, USDA FRAC

John and Eleanor Kuser Faculty Scholar; Urban
and Community Forestry

*Biomass R&D Technical Advisory Committee
August 22, 2012*



Photo Taken 2008, year 11
Photo credit J. Kalter



Data Collection August 2007 year 10
Photo credit G. Dahle

MORTALITY over ten years of o
Pavement: 4 of 35 no replacem
Tree lawn: 14 of 38 with replac

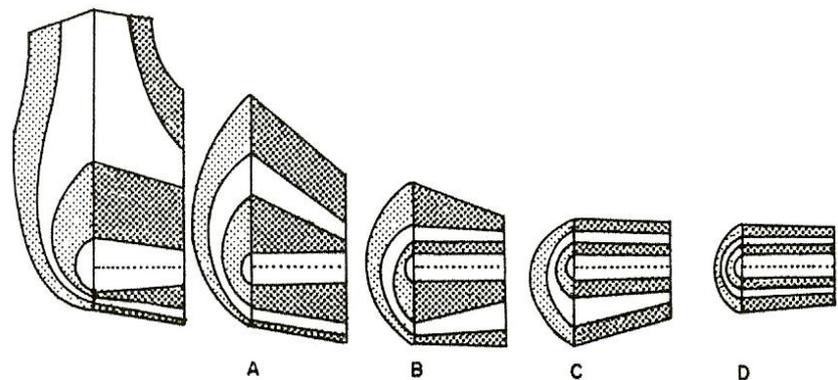


Figure from Fayle 1968





About FRAC

- FRAC advises the Secretary of Agriculture in accordance with the McIntire-Stennis Act of 1962, which authorizes the Secretary to encourage and assist forestry research through land-grant colleges, agricultural experiment stations, and forestry related programs.
- The Council also provides advice related to the Forest Service research program, authorized by the Forest and Rangeland Renewable Resources Research Act of 1978. Council responsibilities cover regional and national forestry research planning and coordination within the Federal and State agencies, forestry schools, forest industries, and non-governmental organizations.
- FRAC convenes annually and presents recommendations directly to the Secretary.

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Questions in forestry

- Goal oriented management, hopefully with a scientific or experiential basis
- Sustained return on investments....yields/services
- In the early 1900s, it had been suggested that forestry problems often reduce to transportation problems. Maybe now they move to energy questions?

- Climate changes which result in insect infestations, species transitions and fire risks: All result in a biomass of potential use
- There are lands managed for clearance which could rather become cropped for fuels or foods.
- Energy corporations need the ability to broker a transference of engineering maintenance expense to a cropping offset to operations cost



You are here: [NRS Home](#) / [Tools & Applications](#) / [Climate Change Atlas](#) / [Tree Atlas](#)

Climate Change Tree Atlas (A Spatial Database of 134 Tree Species of the Eastern USA)

Anantha M Prasad, Louis R Iverson, Steve Matthews, Matt Peters

NRS-4151, USDA Forest Service, Northern Research Station, Delaware, Ohio

[Atlas Background](#) : [What's New](#) : [Citations](#) : [Credits](#) : [Atlas Help](#) : [Other Links \(DropDownMenu\)](#)

Table of 134 Tree Species:

(Click Table-Header-Link to Sort by that Column - Ascending/Descending)

Reliability	Spp. #	Common Name	Scientific Name
	951	American basswood	<i>Tilia americana</i>
	531	American beech	<i>Fagus grandifolia</i>
	421	American chestnut	<i>Castanea dentata</i>
	972	American elm	<i>Ulmus americana</i>
	591	American holly	<i>Ilex opaca</i>
	391	American hornbeam:musclewood	<i>Carpinus caroliniana</i>
	935	American mountain-ash	<i>Sorbus americana</i>
	43	Atlantic white-cedar	<i>Chamaecyparis thyoides</i>
	808	Durand oak	<i>Quercus durandii</i>
	356	Serviceberry	<i>Amelanchier spp.</i>
	311	Florida maple	<i>Acer barbatum</i>
	571	Kentucky coffeetree	<i>Gymnocladus dioicus</i>
	828	Nuttall oak	<i>Quercus nuttallii</i>

Model Reliability: High Medium Low

134 Species Combined/Compared

Combined Species
 Outputs

Summary of
 Predictors

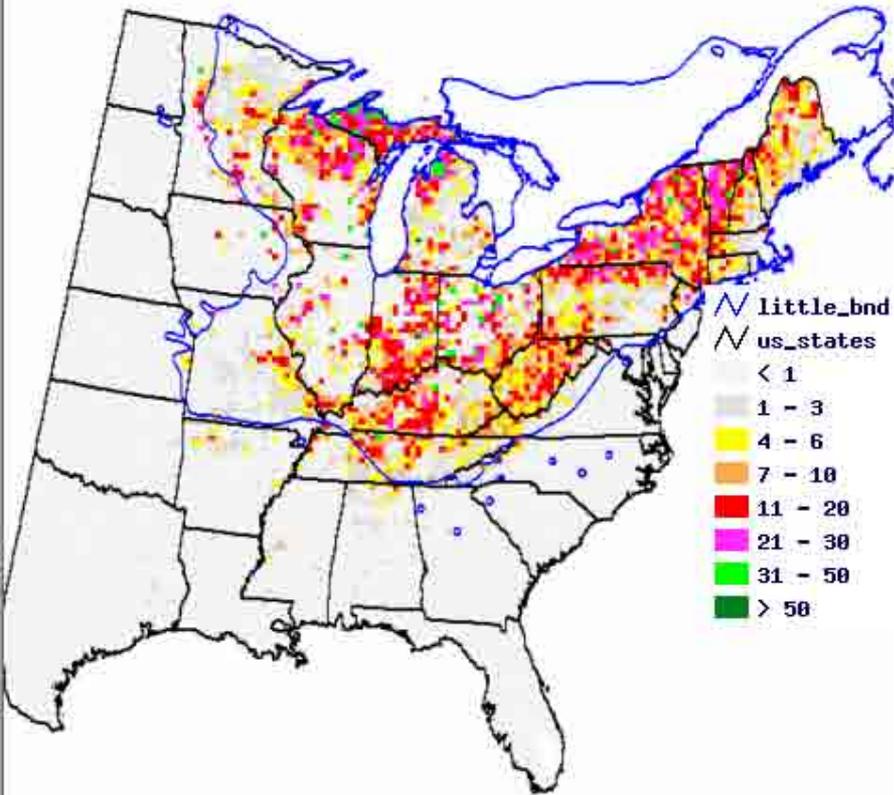
Google Earth
 Maps

Acer saccharum subsp. *saccharum*

Climate Scenario Menu

Choose Climate Scenario from Menu

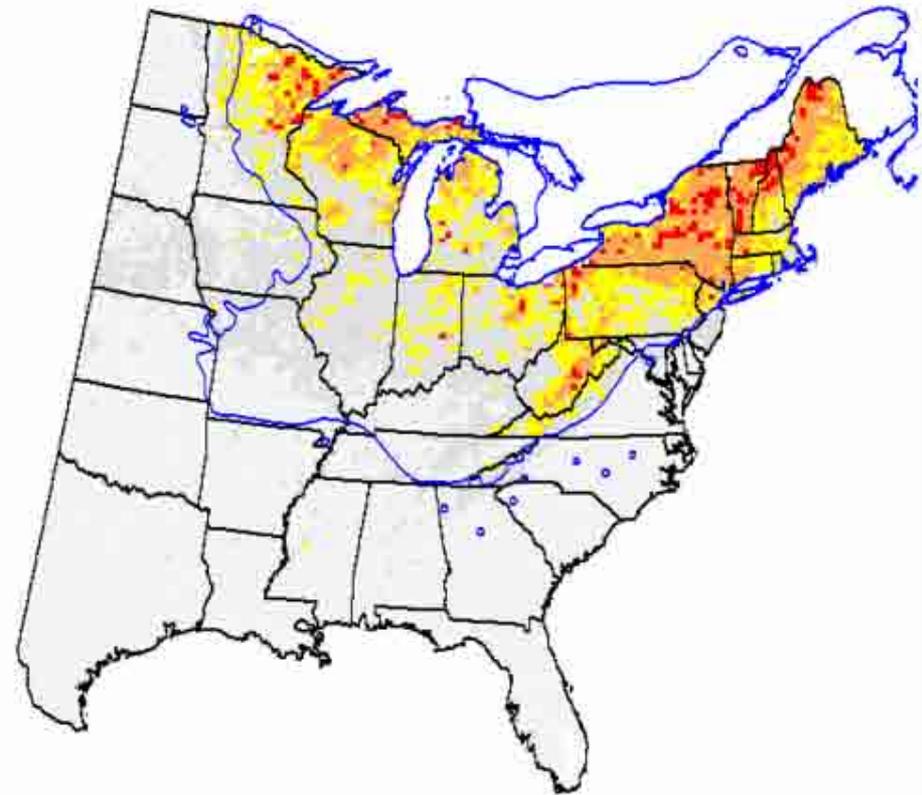
Current FIA

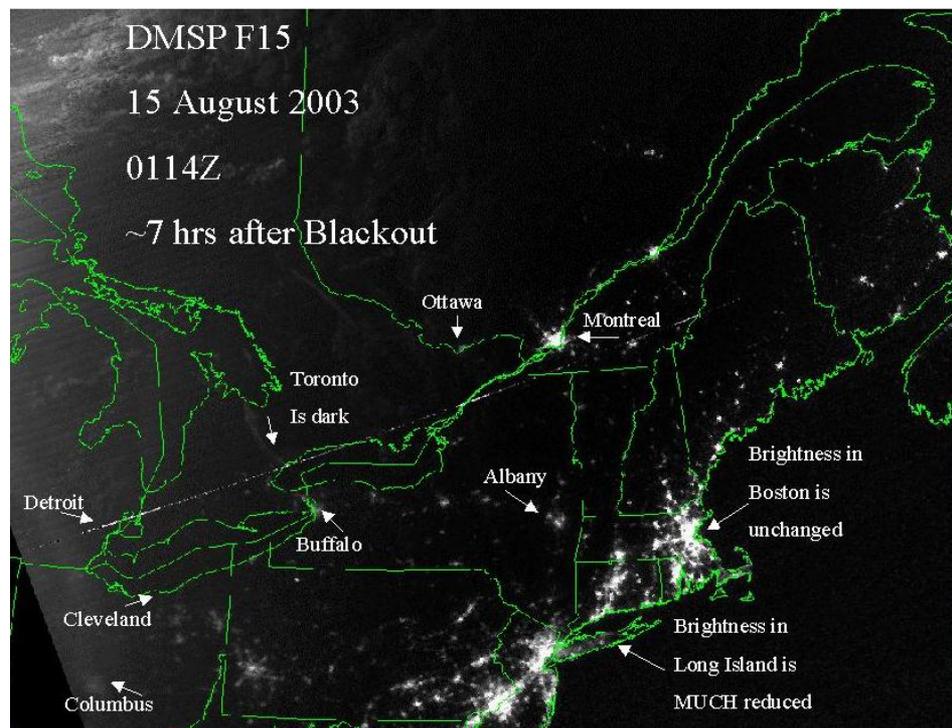
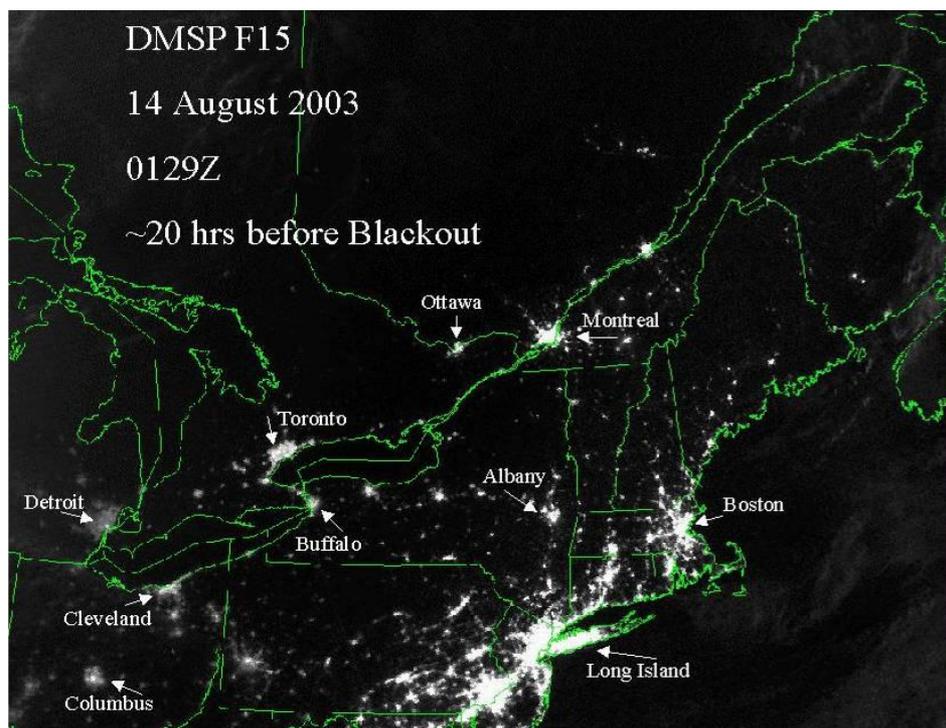


Climate Scenario Menu

Choose Climate Scenario from Menu

Avg. of 3 GCMs - Low





It is not just food/fuel or expensive maintenance,
it is a safety-security issue
There are shared benefit strategies for most situations

2011 FRAC recommendations

- Undergo assessment of MS programs,
- Develop linkages of forests to the PCAST report on establishing common:
 - Language
 - Benchmarks
 - Evaluation criteria

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- ³ *President's Council of Advisors on Science and Technology (PCAST) report: Sustaining Environmental Capital: Protecting Society and the Economy*
- ⁴*Millenium Ecosystem Assessment Reports: <http://www.maweb.org/en/index.aspx>*

“... , and **prioritize proposals in identified systems**, particularly as they relate to bio-fuel harvesting in natural and managed systems.

As with this year’s meeting, the questions of harvesting and best management in forest ecology and fire risk are on the radar with FRAC in my entire time with the Council

- We suggested consideration for social science and decision-support research on issues that involve tradeoffs and unintended consequences of state and federal policies//programs
- We were specific to
 - forest pest and invasive species,
 - biomass, bioenergy, and biofuels policies in natural or managed systems.

- We suggested that USDA / NIFA unique expertise in evaluation of ecosystem functions and services should be recognized in its engagement with other federal agencies, such as in national policy decisions with the assessment of the carbon neutrality of wood-based biofuels by the EPA

- Endorsed the Feedstock Readiness Level Tool (FSRT) for tracking progress of new feedstocks towards commercial production as a framework for strategic evaluation of USDA technology development and feedstock programs for bioenergy and advanced biofuels.
- Recommended the use of the FSRT by USDA and DOE to prioritize both internal and cooperative research investments and technology transfer programs.

2012 meeting themes

- We developed several themes
 - Funding allocation and logistics in match for grants within MS programming
 - Updates on staffing and specialization within USFS Science Programs
 - Updates on invasive species management
 - Updates on the joint fire sciences program
 - Updates on sustainability initiatives and their impact on forest certifications
 - Forest biomass as biofuel discussion
 - Questions on harvest efficiencies in macerated debris and fire risk were discussed

2012 report status

- The letter has been submitted to the Secretary of Agriculture, August 20, 2012
- We await a receipt of the letter, a comment/response development period, then our scheduled briefing (date to be determined)

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