

# Indigenous Experiences in the U.S. and Maine with Climate Change and Environmental Stewardship

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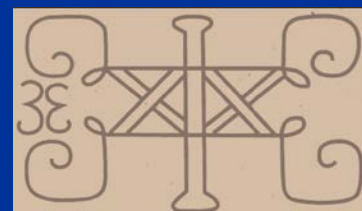
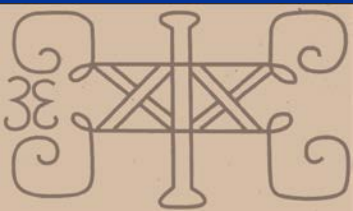
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IUCN World Parks Congress – Sydney, Australia

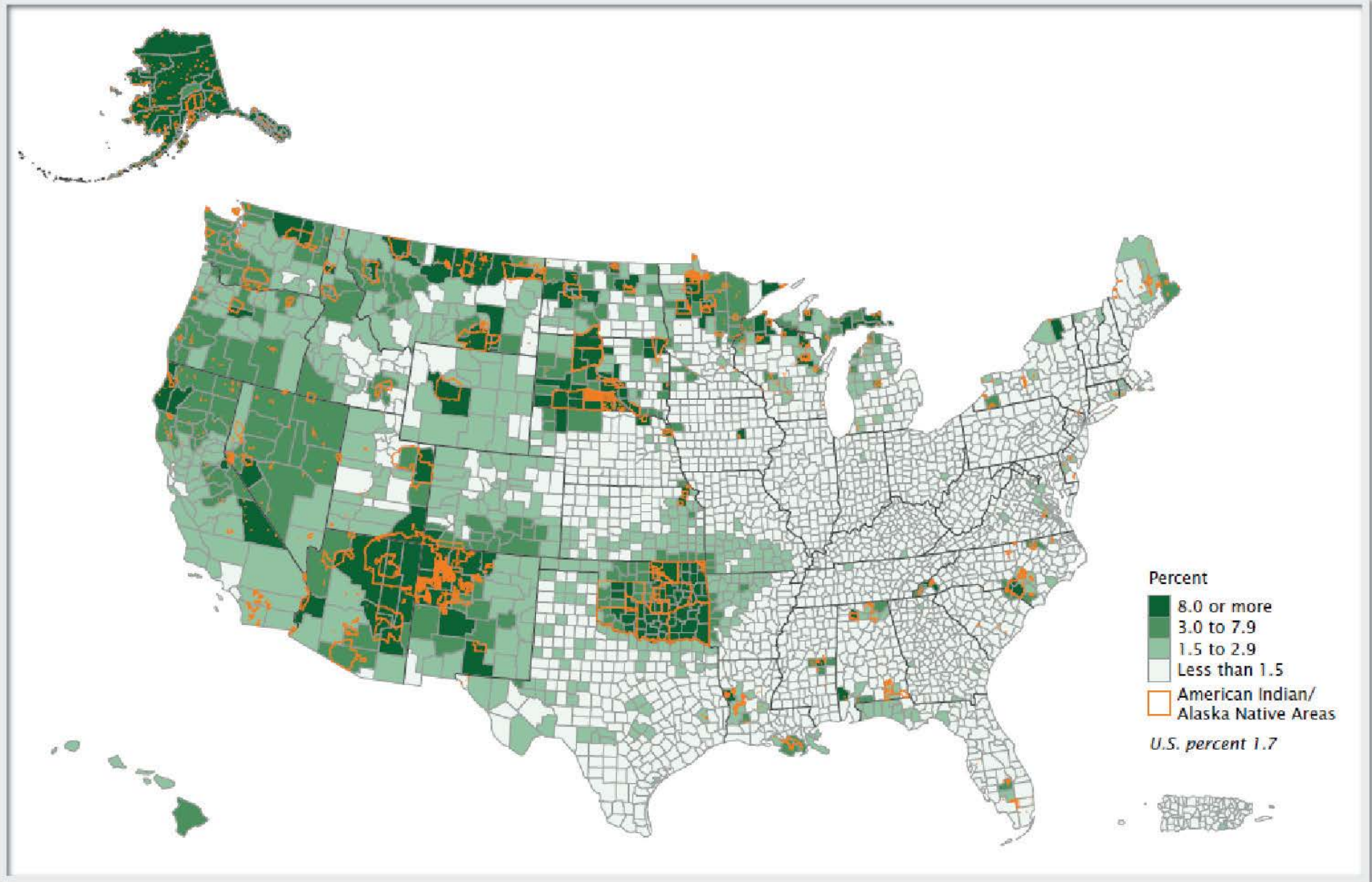
November 17, 2014



# Overview of presentation

- Climate change and indigenous experiences in the US and Maine – focus on social and cultural impacts as a result of changes in natural resource conditions
- Identify aspects that make indigenous peoples especially vulnerable to climate change yet also cultural heritage traits that are unique for adaptation to climate change
- Express the desire tribes have to be involved and to collaborate with a broad set of stakeholders

# Tribal Populations Extend Beyond Reservation Lands



# Cultural connections to the land

Indigenous peoples of the U.S. are spiritually and culturally invested in specific areas and many of the values, meanings, and identities are closely interlinked with features of the natural landscapes and physical interactions with that landscape

# Cultural connections to the land

Glooskap came first of all into this country, into the land of the Wabanaki, next to sunrise. There were no Indians here then. And in this way he made man: He took his bow and arrows and shot at trees, the basket trees, the ash. Then Indians came out of the bark of the ash tree. – Wabanaki Creation Story



# Cultural connections to the land



- According to Houser et al., (2001) approximately 1.2 million (60%) of the U.S. tribal members live on or near reservations, and pursue lifestyles with a mix of traditional subsistence activities and wage labor

# Cultural connections to the land



- There are wild foods such as fiddleheads, deer, moose, birds, fish, berries, and seafood that provide not only sustenance but cultural connections through story telling, harvesting, processing, and sharing food

# Specific impacts threatening indigenous peoples in the U.S.

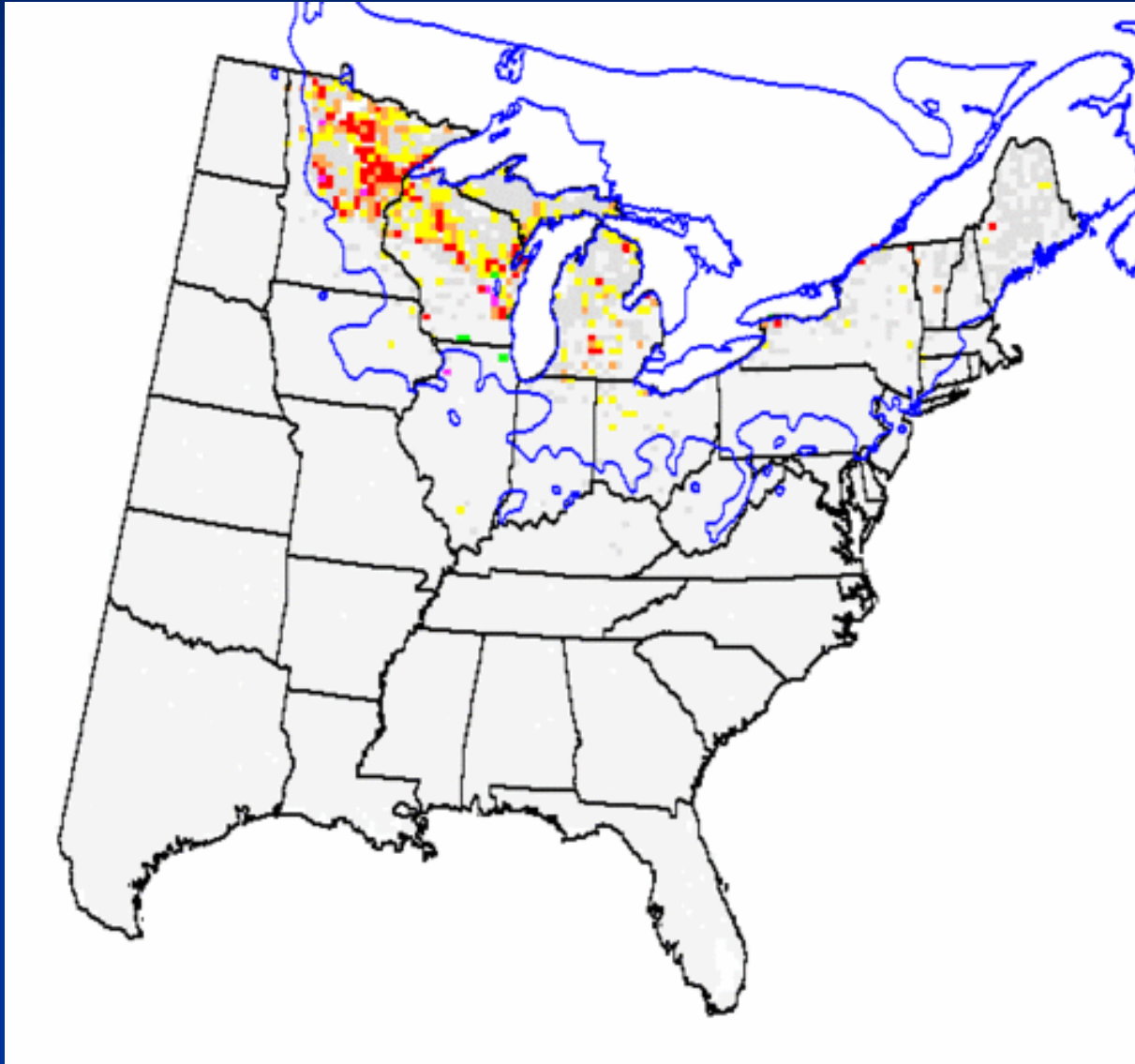
- Some of the specific impacts threatening indigenous peoples in the U.S. inherent in climate change scenarios involve the potential loss of traditional resources and geographical range changes of plant and animal species



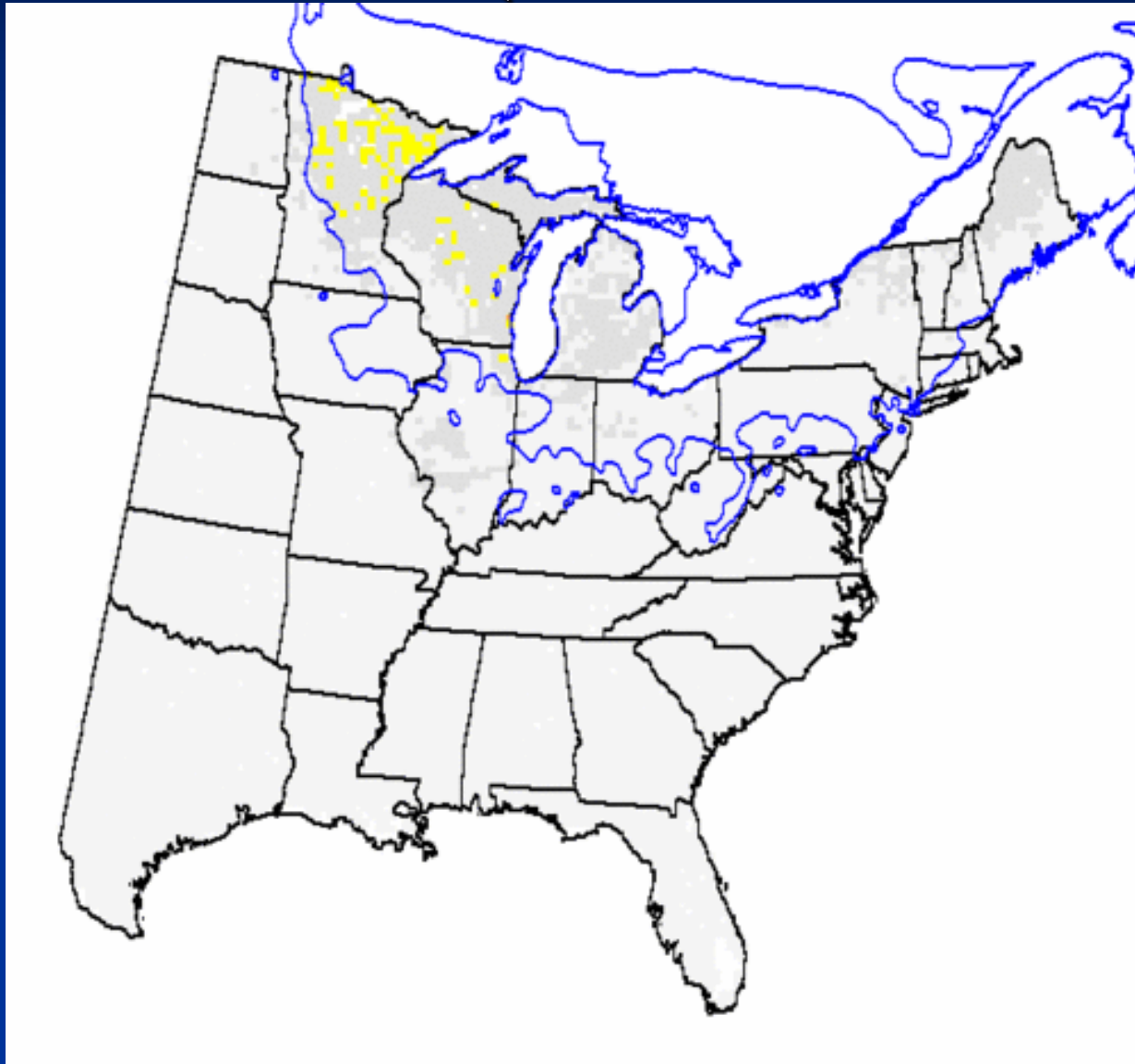
# Brown Ash



# Black Ash (Current)



# Black Ash 2100 (Habitat suitability)







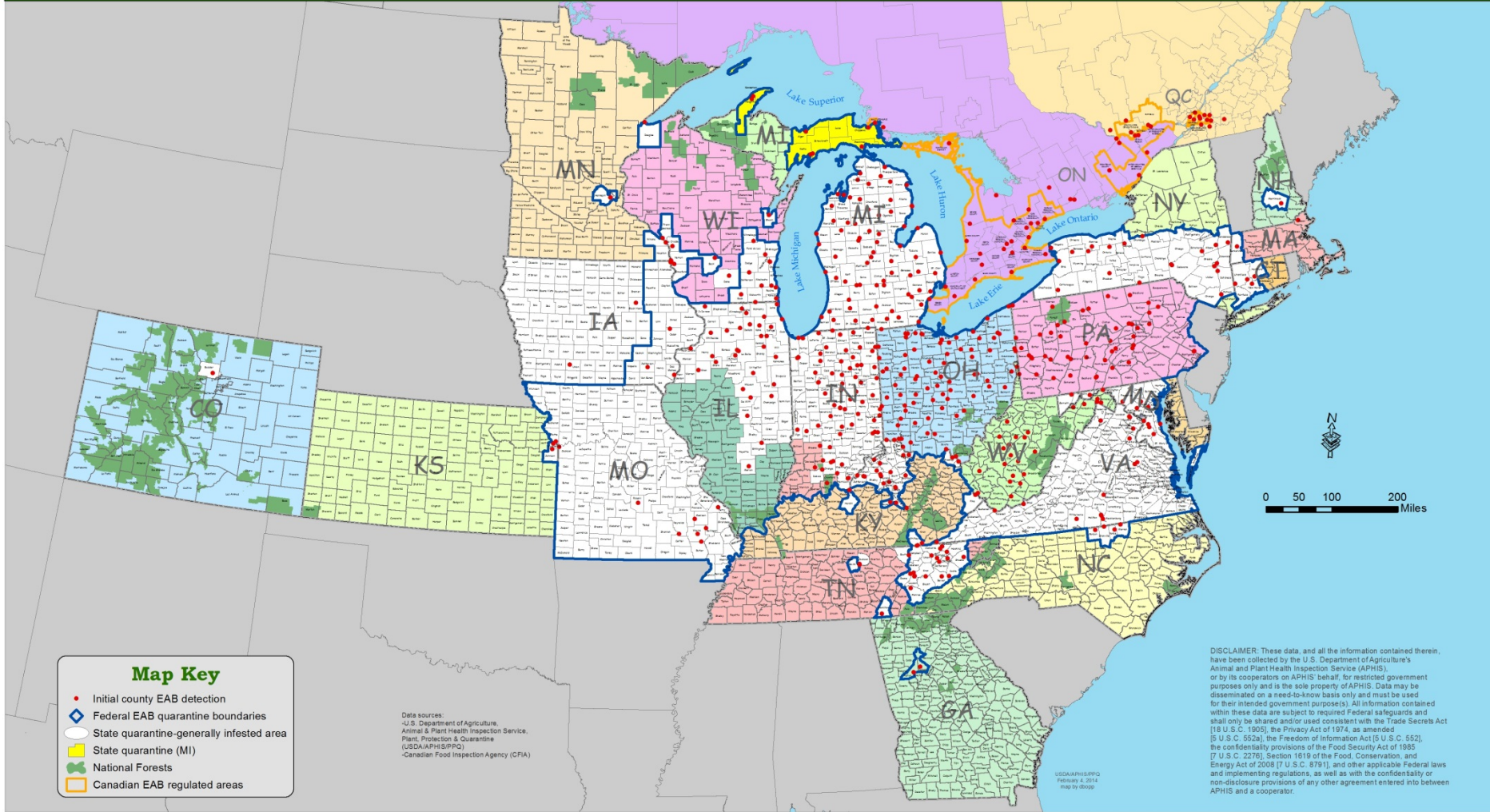




# Cooperative Emerald Ash Borer Project

Initial county EAB detections in North America

February 4, 2014



**Map Key**

- Initial county EAB detection
- ◊ Federal EAB quarantine boundaries
- State quarantine-generally infested area
- State quarantine (MI)
- National Forests
- Canadian EAB regulated areas

Data sources:  
 -U.S. Department of Agriculture,  
 Animal & Plant Health Inspection Service,  
 Plant, Protection & Quarantine  
 (USDA/APHIS/PPQ)  
 -Canadian Food Inspection Agency (CFIA)

DISCLAIMER: These data, and all the information contained therein, have been collected by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), or by its cooperators on APHIS' behalf, for restricted government purposes only and is the sole property of APHIS. Data may be disseminated on a need-to-know basis only and must be used for their intended government purpose(s). All information contained within these data are subject to required Federal safeguards and shall only be shared and/or used consistent with the Trade Secrets Act [18 U.S.C. 1905], the Privacy Act of 1974, as amended [5 U.S.C. 552a], the Freedom of Information Act [5 U.S.C. 552], the confidentiality provisions of the Food Security Act of 1985 [7 U.S.C. 2276], Section 1619 of the Food, Conservation, and Energy Act of 2008 [7 U.S.C. 8791], and other applicable Federal laws and implementing regulations, as well as with the confidentiality or non-disclosure provisions of any other agreement entered into between APHIS and a cooperator.

USDA/APHIS/PPQ  
 February 4, 2014  
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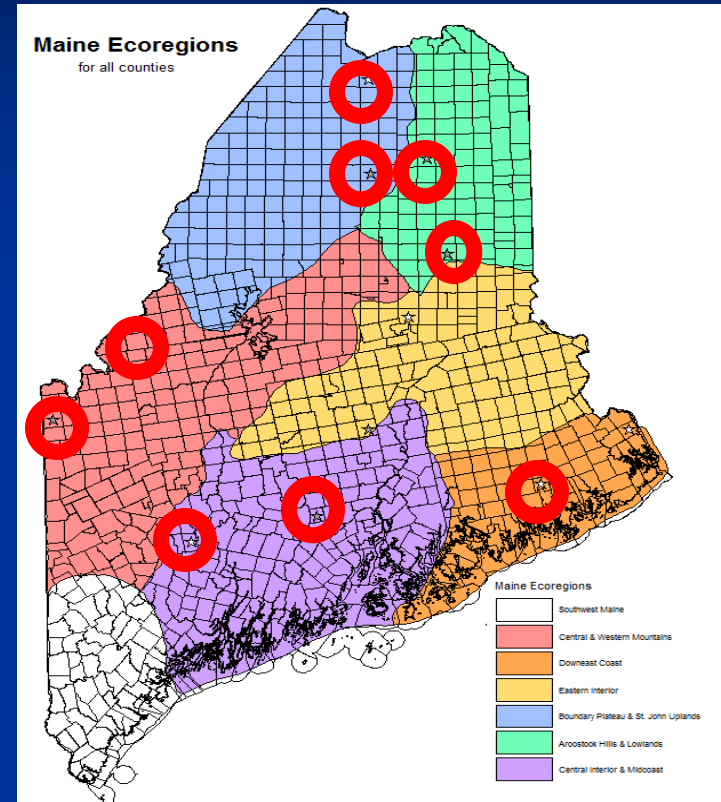


# Integrate Spatial & Expert/Indigenous Knowledge



# Emerald Ash Borer-Brown Ash: SES Research

- 10 Townships Sampled So Far (24 Goal)
- Approx 850 cores collected from 400 trees
- Findings positive: More black ash and wider increment growth than expected
- Tribal harvesters for ground-truthing of data—growth rate, site conditions, health of tree
- Study protects harvest sites, provides more for harvests, and will include videos of harvesting stories and techniques.



# Unique Adaptive Capacities

- Ethical perspectives
- Systems of Ecological Knowledge
- Some of the contemporary solutions of indigenous peoples may help society at large to frame and guide successful adaptation



# Need and desire for tribal entities to “sit at the table”

- The livelihoods and cultures of the indigenous peoples in the U.S. may vary well depend on their abilities to participate and provide input in the shaping of the new forms of economies and sustainable development, including decisions on management of natural resources

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Experiences and Actions

