UNDERSTANDING AND INTEGRATING NATIVE KNOWLEDGE TO DETERMINE AND IDENTIFY HIGH QUALITY ASH RESOURCES

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Black ash (*Fraxinus nigra*) is spiritually, economically, and culturally connected to Native American tribes throughout its range. Considered a cultural keystone species, black ash can be pounded and split along its growth rings to produce exceptionally strong and pliable strips to weave into baskets. Black ash harvesters and basketmakers (subsequently referred to as "experts") report increasing difficulty obtaining basket-grade wood. Emerald ash borer will contribute to this problem. We report here on a study that seeks to address this concern by documenting the traditional ecological knowledge (TEK) of harvesting basket-grade black ash. We will attempt to combine TEK with U.S. Forest Service Forest Inventory and Analysis (FIA) data to model tree and site characteristics associated with basket-grade wood and estimate the current supply and spatial distribution of basket-grade trees. Ongoing consultation with tribes and Native American experts is a central component of the study design.

During the summer of 2009, we conducted interviews with experts in the Wabanaki tribes of Maine and New Brunswick, Canada. Interviewees were asked about the wood characteristics needed for basketmaking and the environmental cues used to identify sites and individual trees, as well as any observations of changes in quality, supply, and spatial distribution of basket-grade trees. Preliminary results suggest that site characteristics, genotype, and life history interact to determine whether an individual tree will be basket-grade quality. We hope to consult with experts in the Mohawk Nation during the spring of 2010. Interview findings will then be validated through fieldwork, in preparation for identifying and analyzing relevant variables in the FIA data set. Results will contribute to the identification of strategies for management and/or restoration.