Introduction

Rivercane (Arundinaria Gigantea) in Choctaw is "Oski," also called American Bamboo. Rivercane is a native plant species inhabiting rivers in the southeastern United States. The Kiaami River sub-basin in southeast Oklahoma supports evidence of dense Rivercane growth in large areas called canebrakes. The Rivercane research along the Kiaami sub-basin is being conducted and recorded by biologist and historical researchers of The Choctaw Nation of Oklahoma. The data collected indicates Rivercane is going extinct and restoration strategies are needed. Organizations such as the US Army Corps of Engineers (USACE), the Sustainable Rivers Program, The Nature Conservancy, and Choctaw Nation, are collaborating ideas to recommend Rivercane restoration studies and projects.

Traditional Knowledge

Traditional Choctaw Knowledge is born from the experiences and observations of Choctaw people over millennia. Each Tribal Nation has their own sacred intellectual knowledges and traditions, which are protected and often discouraged from being recorded.

Traditional and Environmental Uses of Rivercane

Rivercane benefits wetland environment through erosion control, improving water quality, and providing habitat for native fish and wildlife species ("Rivercane Restoration Alliance" n.d.).

Over 60 species of animals, birds, and insects used Rivercane for shelter ("The Wonders of River Cane" 2017). Hunting and gathering purposes - blow guns, fishing reels, and baskets.

The Decline of Rivercane

European settlement was a major impact on Rivercane growth.

- Deforestation- desertification, soil erosion, flooding.
- Urbanization- introduce non-native species, change in atmospheric disturbance, increase in human activity.
- Water Management- Flood control projects reduced natural flooding cycles that are crucial in depositing nutrients and fertile soil into bottomlands.
- Agriculture- Rivercane is also an indicator for high quality fertile soil which was used to farm with during early European settlement.

Notable: The decline of Rivercane may have hastened the extinction of the Carolina parakeet and Passenger Pigeon ("The Wonders of River Cane" 2017).

Scientific Knowledge

Science in the general sense is the systematic accumulation of knowledge. Scientific discovery is dynamic, definitive, and culturally relative. Choctaw scientific knowledge has adopted Western methods of scientific knowledge to create original research in tribal studies. Scientific knowledge of the Choctaw Nation would lead to scientific sovereign rights if solutions are found and identified.

Methods

Rivercane restoration strategies are currently being planned between tribes and federal organizations in the southeastern United States. The Rivercane workshop is a strategy to identify resources, to identify knowledge/data gaps, to share Traditional Ecological Knowledge and Native American perspectives, to develop a Rivercane conceptual ecological model, and to identify potential restoration sites influenced by water management decisions at USACE reservoirs and/or navigation project ("Rivercane Restoration Alliance" n.d.). For example, The University of Alabama in Tuscaloosa is hosting a Rivercane Workshop by The Rivercane Restoration Alliance and Tribal Nations Technical Center of Expertise in October 2021. Tribal Nations in the Southeastern region, The US Army Corps of Engineers, The Sustainable Rivers Program, and The Nature Conservancy are seeking to exchange ideas to implement Rivercane restoration strategies using GIS/USGS and visual observation ("Rivercane Restoration Alliance" n.d.). Further Rivercane research and studies are promised as the outcomes of the workshop. Specific restoration strategies will likely be reliable but some of theTraditional Choctaw Knowledge is sensitive and protected information that will not be documented.

References


