

EXECUTIVE SUMMARY [NON-CONFIDENTIAL, NON-TECHNICAL ABSTRACT FOR PUBLIC INFORMATION OR PROGRAM PROMOTION]: State the application's broad, long-term objectives and specific aims, making reference to the potential public benefits of the project relevant to California. Do not include proprietary or confidential information. This may be distributed before the funding decision has been finalized.

Two important canopy species throughout riparian ecosystems in California are California sycamore and Northern California black walnut. Both the California sycamore and the N. California black walnut are wind pollinated and because their non-native congeners are planted frequently in California as shade or agricultural trees, non-native pollen is likely creating new hybrids. Virtually nothing is known about the population structure of either of these important riparian tree species, to what extent their genetic integrity is maintained. We propose, as an initial step of a series of genetic experiments, to identify native individuals of California sycamore and N. California black walnut and determine the extent these species are hybridizing with their respective non-native congeners. Although these species are unrelated, both are important components of riparian forests within the Sacramento Valley. Loss of native genetic material through hybridization may ultimately affect the ecosystem structure of the remaining five percent of riparian forests throughout California.