

Shinn Grant Report: *Nuphar sagittifolia*
Katherine Culatta

It was a very productive field season for my project, Taxonomy, Population Genetics and Status Assessment of *Nuphar sagittifolia* (Cape Fear Spatterdock), funded by the Shinn Grant. With assistance from NCSU undergraduate Emma Deutch, I visited approximately 1200 bridge crossings and boat landings across 32 North Carolina counties and six South Carolina counties to survey for and document *N. sagittifolia* populations. *Nuphar sagittifolia* was found present at 39 previously reported locations and 16 new locations. No *N. sagittifolia* was found at ten previously reported locations. Additionally, 14 river sections were surveyed, covering approximately 168 river miles. I collected morphological data and leaf tissue from 11 *N. sagittifolia* populations, as well as four populations of the more widespread *N. advena*, and five populations of unclear taxonomic identity, including type populations for *N. sagittifolia* and *N. advena*. With field season over, I am now working in the lab to extract DNA from collected leaf tissue and genotype 600 individuals. Genetic and morphological data will be used to clarify the taxonomic identity of intermediate populations, and will additionally inform conservation decisions for this Southeastern coastal plain endemic plant.

Photo: Katherine Culatta surveying a *Nuphar sagittifolia* population at Lake Waccamaw, NC.

